

Tips For Better Security & Compliance

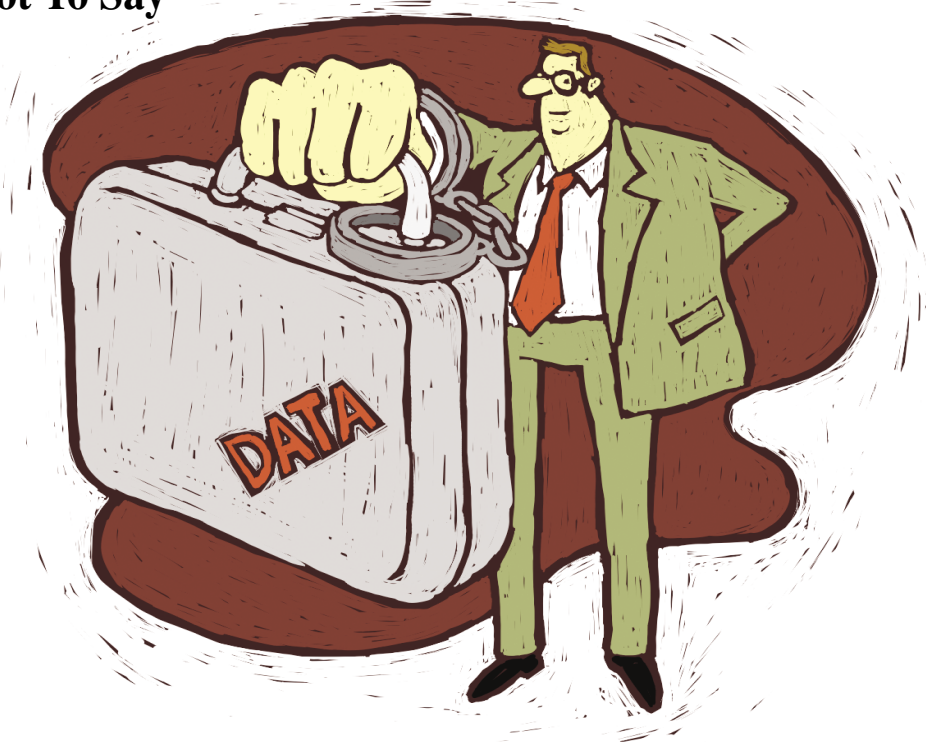
Top IT Professionals Have A Lot To Say About Data Security

by Julie Sartain

EVERY AREA OF DATA SECURITY is an issue in today's global economies, where communication takes place on multiple levels, from the simplest email to the most complex protocols. Every piece of equipment, every operating system, programming language, appliance, peripheral, hardware, and software component is talking to one another over a thousand other computers a day through networks, Web sites, browsers, emails, instant messaging, ISPs, VoIPs, Web conferencing, etc. It's not just about the visual communications anymore—that is, the data we can see, read, and comprehend. So much is going on in the background, security breeches can occur at levels that we aren't even aware of.

This frightening concept concerns everyone—from the mailroom couriers to the CEOs—so IT professionals are continually challenged with creating and maintaining new ways to protect your data. Organizations ranging from government agencies to financial services are seeking solutions, and the related costs in terms of dollars and reputation are huge.

We talked to several IT professionals in some of the top data security companies in the nation, and they had a lot to say about data security. Here's a list of their top tips for better security and compliance in various data center-related areas.



Be Aware Of Back Doors & Loopholes

"Email security appliances are black boxes. They rely, to a certain extent, on security-by-obscurity," says Greg Olsen, *Go to Page 12*

Safeguarding Against Logic Bombs

How To Protect Your SME From The Big Kaboom

by Chris A. MacKinnon

ALTHOUGH THEY'VE BEEN AROUND for some time, logic bombs exploded onto the corporate IT radar map last year when a disgruntled employee from UBS Paine-

Webber planted a logic bomb on a company host server, which caused 2,000 servers and 400 branch offices to go down. The cost of the "explosion" was an estimated \$3.1 million to restore the network and one full business day of downtime.

According to Dwayne Melancon, vice president of corporate and business development at Tripwire (www.Processor.com/Tripwire-Inc), a logic bomb is a piece of

malicious software code that can come from external sources, such as implanted in a virus or worm, or can originate from within an organization. "In either case," he says, "logic bombs are designed to carry out specific negative actions when certain criteria are met."

Bomb Detection

William R. Winters, president and CEO at Active Reasoning (www.Processor.com/Active), says many companies discover the presence of logic bombs in their systems in one of two (unacceptable) ways. "The first way is to find the bomb, by chance, before it goes off," Winters says. "Time and again, we read reports of another employee stumbling upon a logic bomb. Clearly, this kind of passive approach is inadequate. The other *Go to Page 12*

"Logic bombs are designed to carry out specific negative actions when certain criteria are met."

- Tripwire's Dwayne Melancon

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Data Center Tips

We interviewed product manufacturers and other experts to create lists of the best tips in several key data center areas.

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Capturing and retaining electronic communications, especially archiving them in a manner that is useful or accessible in any way, is a challenge for organizations trying to be compliant.

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A common solution for aligning a company's business units and IT involves consolidating IT functions and running IT as an internal business, charging other units for IT service consumption.

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The deciding factors that should play into your analysis to leverage scale-out or scale-up architecture include high-availability, cooling, and space requirements.

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■ **Adder** announced its AdderLink IP engine per server KVM-via-IP devices. ■ **Altiris** released Altiris Deployment Solution 6.8 SP1, which helps users ensure business continuity when migrating to Windows Vista. ■ **APC** unveiled InfraStruXure Central v4.0, a platform for the integration and deployment of intelligent enterprise management applications. ■ **Berkeley Varitronics Systems** announced Sieve, a WiMAX filtering application that can help companies improve the performance of 2.5GHz and 3.4GHz networks. ■ **Blue Lane Technologies** introduced VirtualShield, which protects virtual machines running VMware Infrastructure 3 from attacks that target known but still unpatched vulnerabilities. ■ **MicroNet** released Platinum NAS 4.0, a 4TB NAS server.

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Steelcape Secures & Accelerates Data

New Solution Effectively Sends Data Without Opening Ports In The Firewall

COMPANIES SPEND BILLIONS to deter hackers. Current security offerings rely on encryption, but Steelcape believes in a more powerful approach that rejects the notion that ports must be opened and stay open. The Steelcape solution allows transactions to be completed without creating a hole in a user's firewall, and without the need for ongoing involvement of a central server.

Steelcape has developed an alternative TCP/IP communication method. This results in secure data being able to traverse the firewall unhindered. Steelcape alters IP

packets, enabling them to pass through firewalls unchallenged and unmodified. Steelcape's blend of patented computing algorithms and packet manipulation can be used to replace elements of the existing TCP/IP protocol stack or supplement the existing TCP/IP protocol stack. It is an ideal VPN or VLAN alternative and is compatible with TCP/IP version 4 and 6.

Steelcape concentrates security at the data level, and our easy-to-implement software agent deployment provides faster and more secure communication between computers.

- With Steelcape, you benefit from:**
- Elimination of the need to open firewall ports. You'll see a greatly reduced risk of internal and external hacking and reduced cost of security solutions.
 - Direct communication between two computers with limited overhead. This means reduced bandwidth requirements by up to 25%, reduced lag time by 10%, reduced number of servers by up to 25%, and a reduced support staff.
 - Bypassing of the transport layer, resulting in a decentralized enterprise architecture.

The Steelcape solution can be deployed from either a hardware appliance or software-based agent. Typical implementations are to deploy a point-to-point implementation that takes minutes to show results. The Steelcape Enterprise Manager provides reporting and managing of the digital signatures and encryption rules.

Steelcape Solution

Uses an alternative to TCP/IP that results in secure data being able to traverse the firewall unhindered

(310) 622-7004

www.Processor.com/Steelcape



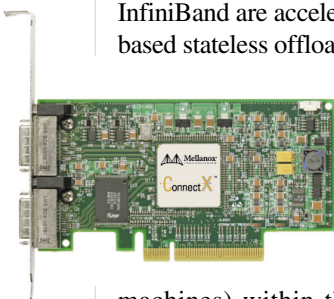
Performance-Driven Server & Storage Clustering

Mellanox ConnectX 20Gbps InfiniBand Adapter Cards Can Speed Data Access, Lower Costs

MELLANOX CONNECTX IB Dual-Port InfiniBand Adapter Cards with PCI Express deliver low latency and high bandwidth for performance-driven server and storage clustering applications in data centers and other environments. Clustered databases, parallelized applications, transactional services, and high-performance embedded I/O applications will achieve significant performance improvements resulting in reduced completion time and lower cost per operation.

ConnectX IB simplifies network deployment by consolidating clustering, communications, storage, and management I/O and providing enhanced performance in virtualized server environments.

Clustered and client/server applications achieve maximum performance over ConnectX IB because CPU cycles are available to focus on critical application processing instead of networking functions. Applications utilizing TCP/UDP/IP transport over



InfiniBand are accelerated through hardware-based stateless offload engines.

ConnectX IB support for hardware-based I/O virtualization complements Intel and AMD virtualization technologies. VMs (virtual machines) within the server are enabled with dedicated I/O adapter resources and guaranteed isolation and protection. Hypervisor offload features remove software-based virtualization overheads and free up CPU cycles.

A unified InfiniBand cluster for computing and storage achieves significant cost-performance advantages over multifabric networks. Standard block and file access protocols leveraging InfiniBand RDMA


result in high-performance storage access. Data reliability is improved through the use of T10-compliant Data Integrity Field. Fibre Channel over InfiniBand features enable the use of cost-effective bridges for connecting to Fibre Channel SANs.

Mellanox ConnectX 20Gbps IB Dual-Port InfiniBand Adapter Cards

Can achieve significant cost-performance advantages over multifabric networks for computing and storage

(408) 970-3400

www.Processor.com/ConnectX-IB-Card



Protecting Critical Data Center Loads

Staco TreStar P Series UPSes Eliminate Overloads, Flicker & More In Real Time

THE STACO TRESTAR P SERIES of UPSes is designed to meet the power protection needs of today's most sensitive critical loads. The P Series' new digital control system eliminates all overloads, frequency variations, transients, flicker, and blackouts in real time. And it processes signals 10 times faster than previous analog methods.

UPS reliability begins with design. With a true online, double-conversion design, the TreStar P Series isolates your connected loads from utility power and provides clean, regulated output voltage and frequency.



Staco TreStar P Series 125-150kVA model

tor, vector-controlled IGBT inverter, input circuit breaker, internal maintenance bypass, advanced battery management, and an optional 7% harmonic filter.

In addition to all the features found on the 125-150 model, the 180-225kVA model also features state-of-the-art communications, matching battery cabinets with internal disconnect, top and bottom cable entry, and a standard 7% harmonic filter.

Other optional features include:

- SNMP Adapter
- External Maintenance Bypass
- Parallel kit
- Network Solutions software
- Extended battery runtimes
- Extended warranties
- Preventative maintenance

Staco TreStar P Series

True online, double-conversion UPS with a digital control system designed to process signals faster than analog methods

(866) 261-1191

www.Processor.com/PSeries125

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Meeting Data Center Physical Needs

Rittal RimatriX5 Package Combines Racks, Cooling, Monitoring & More

RITTAL'S RIMATRIX5 is the integral, scalable, and efficient system solution for ultimate IT performance. The RimatriX5 incorporates a number of unique products:

Server and network racks. With RimatriX5 server racks you take delivery of a system platform with perfectly matched climate control, power, and security solutions. RimatriX5 places emphasis on maximum packing density and efficient space utilization. Flexible configuration of the IT racks improves TCO and helps lower the day-to-day rack operating costs.

Data center power. Interruptions to critical business processes, whether due to hardware faults, production breakdowns, communications failures, or insufficient or nonexistent protection against voltage fluctuations, can have far-reaching consequences. With RimatriX5, the demands with regard to redundancy, scalability, and maximum availability are bundled into a single system. The solutions help reduce costs and boost the availability of the overall system. It is even possible to retrofit new modules without interrupting operation.

Data center cooling. The RimatriX5 offers passive cooling utilizing the ambient air; active, rack-specific cooling, and high-performance cooling for temperature-neutral data center expansion. In each case, the systems are tailored to your needs and application requirements, taking into consideration all ambient conditions. Software-assisted planning tools

minimize investment outlay and provide for maximum peace of mind.

Data center security. With the CMC-TC Rittal offers a modular monitoring system with optimum protection for IT racks and rooms. Because the system is modular, it can be adjusted to the individual requirements of the existing infrastructure. Extension and retrofitting are also possible.

Data center monitoring. When it comes to security and remote maintenance, RimatriX5 offers full service from a single partner. From a single software interface, you can analyze and control the temperatures of racks or components, check the operating status of the UPS backup, monitor video surveillance for the rooms and equipment, and evaluate the power management and battery needs.

Rittal RimatriX5

A comprehensive data center solution encompassing racks, power, cooling, security, and monitoring

(800) 477-4000

www.Processor.com/Rittal





Intel To Build Plant In China

INTEL WILL BEGIN building a \$2.5 billion chip manufacturing plant on the northern coast of China later this year. Intel President and CEO Paul S. Otellini announced the plans during a press conference in Beijing. Intel received financial incentives from the Chinese government to build the plant. The chip plant, which will be called Fab 68, should start producing chips in early 2010. The exact types of chipsets that will be manufactured at the plant has yet to be decided and could include traditional chipsets as well as wireless or cellular chipsets.

FCC Will Likely Keep Cell Phone Ban On Flights

CITING CONCERNS FROM the cell phone industry that even one call made from a cell phone on an airplane could cause networking complications and interference, Federal Communications Commission Chairman Kevin Martin has talked to his four fellow FCC commissioners and requested they stop considering a proposal permitting cell phone usage on flights. If the commissioners vote to terminate the proposal, the current rules that prohibit people from using their cell phones after the planes have taken off would remain in effect. The FCC has received thousands of comments on whether to allow or prohibit cell phone usage on flights; its main concern is the effect on cell phone systems on the ground.

Bill Introduced To Double H-1Bs

U.S. REPS. LUIS GUTIERREZ (D-Ill.) and Jeff Flake (R-Ariz.) are co-sponsoring an immigration reform bill that if passed would increase the number of H-1B visas that could be issued annually from the current 65,000 to 180,000. The H-1B cap increase is just part of the bill that was recently introduced. Also included in the bill is a measure that would remove limits on granting visas to foreign nationals who have graduated from U.S. universities with advanced degrees in science, technology, engineering, or math. Currently, there is a limit of 20,000 extra visas that can be issued during a government fiscal year above the H-1B cap.

Vista To Have Little Effect On PC sales

GARTNER RESEARCH FIRM says Windows Vista will have little impact on PC sales this year for the consumer segment and will have “virtually no impact” on business PC sales this year. With enterprises, according to Gartner, widespread adoption won’t begin until the middle of next year, after they’ve had time to thoroughly test the new OS and validate it against existing applications. That also coincides with the predicted time for a new replacement cycle, according to Gartner. Gartner predicts about 255 million new PCs will be sold this year, up about 10.5% from last year, and that global PC revenues will be up about 4.6%.

Notebooks To Surpass Desktops

AN IDC REPORT PREDICTS THAT, on a global scale, by 2011 more than half of all client PCs will be notebooks rather than desktop PCs. And although IDC thinks the release of Microsoft’s Windows Vista OS will temporarily boost worldwide desktop shipments, overall, their shipments are continuing to decline as laptop shipments increase. For the fourth quarter last year, shipments of desktops rose only 2% to 138.3 million,

while shipments of portables (excluding handhelds) increased 26.3% to 82.4 million. According to a separate report from Current Analysis, retail sales of laptops in the United States surpassed desktop PC sales in 2005.

Symantec Issues Latest Internet Security Threat Report

SYMANTEC’S MOST RECENT REPORT on Internet security, which spanned July 1 to Dec. 31 last year, shows cybercriminals are increasingly building global networks to cooperatively carry out more complex attacks. Hackers are moving away from mass-mailing worms to using Trojans instead; of the top 50 samples of malicious code Symantec found, 45% involved Trojans. Attackers are also increasing their use of botnets; during the worldwide six-month study, Symantec found more than 6 million computers that were bot-infected, up 29% from the previous six months. Zero-day vulnerabilities are also on the rise: In its study covering the first half of 2006, Symantec found only one; in this latest study, it found 12.

Oracle Posts Strong Profits

ORACLE’S FISCAL THIRD QUARTER revenue rose nearly 27% to \$4.4 billion, compared to \$3.47 billion a year ago. Much of the increase is credited to software revenue, which equaled \$3.5 billion, up 25% from a year ago. Software application license revenues were up 57%, and database and middleware license revenues were up 17%; sales of new middleware licenses were up 82% in the third quarter. Oracle’s third quarter net profit was up 36% to \$1.03 billion, or about 20 cents per share. That compares to \$765 million, or 14 cents a share, during last year’s third quarter.

Microsoft Plans Phone System

MICROSOFT ANNOUNCED PLANS for a new VoIP phone system designed for small businesses. The Response Point phone system is designed to be easy to install and manage. It will include a voice-activated user interface and support both VoIP and traditional phone lines. Response Point is expected to be available later this year in three OEM models: the D-Link DVX-2000, Quanta Syspine, and Uniden Evolve. The announcement is just the latest move in Microsoft’s endeavor into the communications market; earlier this month the company acquired TellMe Networks, a provider of voice services, for about \$800 million.

EU Comments On Microsoft

THREE YEARS AFTER the initial charges that Microsoft illegally abused the dominance

of Windows to gain market share in the workgroup server market, European Commissioner Neelie Kroes addressed the European Parliament claiming the company is still exhibiting “abusive behavior.” According to the Commission, in 1999 Microsoft had 35 to 40% market share in the workgroup server market. Since then, its share has grown to 70 to 75%. That lead in the market is largely due to Microsoft’s unwillingness to share information with competitors at a reasonable price, according to the Commission.

Most Boards Don’t Pay Attention To IT

DELOITTE CONSULTING HAS RECENTLY released a study that indicates that although corporate board members believe that IT strategy is important, they also admit to not paying enough attention to IT issues. Deloitte surveyed 455 directors of large companies for the study and found that only 10.5% of those directors said the boards they sit on discussed IT issues at every meeting. Almost half—48.7%—said that IT issues were discussed at meetings only on an as-needed basis.

IT Growth To Slow

ACCORDING TO A CONSENSUS REPORT of industry forecasts by Analyst Perspectives, which is a unit of SkillSoft, this year will see an increase of 4 to 6% in IT spending, compared to last year’s increase of 8%. In SMEs and emerging economies, however, IT growth rates are expected to be higher. The report also included some interesting numbers, including an increased use of virtualization, which would decrease the number of necessary servers. However, server sales are expected to grow by 6.5%, and more of those servers will be run as virtual servers.

Oracle Sues SAP

ORACLE HAS FILED A LAWSUIT against its competitor SAP claiming that SAP and its wholly owned subsidiary TomorrowNow committed computer data access and fraud, computer fraud and abuse, and intentional interference with prospective economic advantage. Oracle says SAP hacked into its customer support center and stole software and support materials. On its password-protected customer support and maintenance site, Oracle discovered more than 10,000 illicit downloads by customers whose support and maintenance contracts had already or would soon expire. Oracle also noticed they were new SAP TomorrowNow customers or would be soon. Oracle found the IP address the access originated from was not from customer locations but was an SAP branch office location.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	March 19 \$	March 26 \$	% change from previous week
Avaya	AV	\$11.82	\$11.66	\$11.97	▲ 2.66%
BEA Systems	BEAS	\$12.35	\$11.31	\$11.80	▲ 4.33%
Computer Associates	CA	\$27.78	\$25.75	\$26.81	▲ 4.12%
Cisco Systems	CSCO	\$21.67	\$26.21	\$26.34	▲ 0.5%
Dell	DELL	\$29.79	\$22.48	\$23.62	▲ 5.07%
Electronic Data Systems	EDS	\$27.60	\$27.56	\$27.86	▲ 1.09%
Google	GOOG	\$347.24	\$446.33	\$465	▲ 4.18%
HP	HPQ	\$33.99	\$40.14	\$40.44	▲ 0.75%
IBM	IBM	\$83.65	\$93.84	\$95	▲ 1.24%
Intel	INTC	\$19.64	\$19.10	\$19.29	▲ 0.99%
McAfee	MFE	\$25.98	\$29.31	\$29.89	▲ 1.98%
Microsoft	MSFT	\$27.89	\$27.74	\$28.22	▲ 1.73%
Oracle	ORCL	\$13.74	\$17.15	\$18.39	▲ 7.23%
Red Hat Software	RHT	\$29.50	\$22.90	\$23.78	▲ 3.84%
Sun Microsystems	SUNW	\$4.84	\$6.20	\$6.22	▲ 0.32%
Symantec	SYMC	\$15.65	\$16.78	\$17.61	▲ 4.95%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Upcoming IT Events

- APRIL -

Infotec
April 16-18
Omaha, Neb.
www.infotec.org

.....

Gartner Symposium/ITXpo
April 22-26
San Francisco, Calif.
www.gartner.com/it/sym/2007/spg9/spg9_home.jsp

.....

Chicago SecureWorld Expo
April 24-25
Chicago, Ill.
www.secureworldexpo.com

.....

ASCDI Spring
April 25-28
Las Vegas, Nev.
www.ascdi.com

.....

Help Desk Institute Conference
April 30-May 3
Las Vegas, Nev.
www.thinkhdi.com/hdi2007

- MAY -

Atlanta SecureWorld Expo
May 1-2
Atlanta, Ga.
www.secureworldexpo.com

.....

Server Blade Summit
May 1-3
Anaheim, Calif.
www.serverbladesummit.com

.....

Gartner Compliance & Risk Management Summit
May 9-11
New Orleans, La.
www.gartner.com/it/page.jsp?id=498334&tab=overview

.....

Houston ITEC 2007
May 16-17
Houston, Texas
www.goitec.com

.....

Philadelphia SecureWorld Expo
May 16-17
Philadelphia, Pa.
www.secureworldexpo.com

.....

Interop
May 20-25
Las Vegas, Nev.
www.interop.com/lasvegas

- JUNE -

Symantec Vision 2007
June 11-14
Las Vegas, Nev.
www.veritas.com/vision

.....

Detroit ITEC 2007
June 13-14
Detroit, Mich.
www.goitec.com

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Environmental Services

Keep The Data Center Environment In Good Working Order

by Sandra Kay Miller

• • •

WHILE THE SERVERS, applications, and information housed in the data center is critical, without reliable environmental services, such as HVAC, cleaning, and maintenance, data centers can quickly fall short in their quality of services. Today’s data centers are more sophisticated than they’ve ever been, so choosing the right company to provide the services for keeping your data in top shape shouldn’t be left to just anyone.

There are a number of companies that provide environmental services for data centers. Vendors specializing in cleaning offer services, including care for subfloors, above floor, equipment, and ceilings. Understanding how certain cleaning and sealing products can affect a data center’s environment is far beyond the scope of regular janitorial services, as are other data center-related services, such as the removal of unused cables.

Another environmental concern unique to data centers is the remediation of zinc whiskers. According to the Uptime Institute, a consortium of data center professionals who establish “best practices” to decrease downtime, this phenomenon can short out critical electronics. It is caused by stress on raised floor tiles that have a zinc electroplated passivation coating on the sheet-metal pan, creating tiny metallic filaments that can break off and be drawn into electrical components via cooling fans. Once inside, the whiskers cause electrical shorts resulting in intermittent errors or total failure.

Cleaning up after a disaster such as a flood or fire should also be handled by professionals knowledgeable in data center environments.

Most environmental service companies also offer environmental auditing and reporting for cooling, heating, and airflow levels; contaminants; and static discharge. Once a baseline is established, data centers can better determine when services are required.

Many data centers adhere to ISO 14644 standards, which set guidelines that include cleanliness based on microscopic particles per cubic meter of air and regular testing.

Buying Tips

Here are some key factors to consider when choosing a vendor for environmental services for your data center.

- Ask about personnel training and certification. Be sure that the people performing the services are qualified.
- Look for environmental service companies who have strategic partnerships with leading data center equipment vendors.
- Verify that the company is insured and bonded. Insurance coverage should be in the \$2 million to \$4 million range.
- Find out what cleaning methods and equipment the company uses. For example, are HEPA filters used on all vacuuming equipment?
- Consider a vendor that can meet multiple service needs, for instance, a company that can provide cleaning services for the subfloor and above floor.
- Examine the service-level agreement. Are services available 24/7 if the need arises? If cooling equipment suddenly goes down, how fast can it be repaired or replaced?
- Require references and check them.

The government has similar benchmarking standards, U.S. Federal Standard 209E. An environmental service company can help ensure these standards are met and maintained.

Cool Clean Air

Similar to keeping the physical infrastructure clean and well maintained, environmental services for the data center also include minimizing dust particulates in the air and controlling temperatures.

Ron Hughes, president of the California Data Center Design Group (www.Processor.com/CDCDG), cites inadequate cooling and air quality as two principle problems facing growing data centers: “With more data centers installing high-density blade servers, more heat is being generated.”

Environmental services for the data center should include regular maintenance for HVAC systems, including changing filters and monitoring performance. According to Clark Michel of Atlas Sales & Rentals, cooling equipment failure can be minimized by regularly changing the filters on cooling equipment.

Despite regular maintenance, cooling equipment failures still occur, leading to rapid heat buildup putting critical equipment at risk. Working with a vendor offering round-the-clock emergency service can help reduce the chances of damage from overheated equipment.

Recognizing similarities in many environmental services geared toward data centers, many vendors offer a variety of services. Finding the right service company can cut down on the number of vendors needed to meet your needs. Often, service companies will form strategic partnerships with leading data center equipment vendors to help ensure the quality of their services. Here’s a look at some of the companies offering environmental services for data centers.

Premier Solutions

For 18 years Premier Solutions has helped build and maintain data centers for organizations such as Jet Propulsion Labs, Boeing, and AmeriQuest. Its comprehensive list of services includes regular maintenance and cleaning for raised floors and subflooring. By

SNAPSHOT

Premier Solutions

Offers cleaning, inspection, and maintenance for raised floors, as well as cleaning services for hardware, desktops, servers, and racks

www.Processor.com/PremierSolutions

keeping the subfloor air plenum clean, airflow and air quality are increased, taking less toll on air cooling and filtering equipment.

Premier’s services include adjustments and repairs to floor tiles, pedestals, and subfloor sealing. The company also features Triton Technology Systems’ KoldLok raised floor grommets.

Additionally, Premier’s products and services include sales and service for KVM equipment, power distribution, management and backup systems, and equipment racks. For organizations considering an expansion or building a new data center, Premier offers needs analysis, optimization plans, power and cooling evaluations along with project management, and equipment installation and implementation.

Media Recovery

With more than 30 years experience, Texas-based Media Recovery provides a full roster of data center cleaning services. For data centers housing sensitive information, Media Recovery performs extensive back-

SNAPSHOT

Media Recovery

Delivers comprehensive data center cleaning services for subfloors, above floors, equipment, and above-ceiling, as well as a variety of environmental audits and disaster recovery services

www.Processor.com/MediaRecovery1

ground and security clearance in addition to comprehensive training for their technicians.

For data centers following the ISO 14644 standards, Media Recovery offers cleaning, monitoring, and maintenance services covering raised floors, subflooring, equipment, and above-ceiling. Environmental audits provide data center managers with full reporting about airborne contaminants, cooling, heating, and airflow.

In addition to environmental services, Media Recovery provides tape library and storage media services along with disaster recovery services.

Data Clean

Data Clean has been caring for data center environments for more than 25 years with locations throughout the United States, Canada, Europe, and Asia by providing consulting, cleaning, and mechanical services.

SNAPSHOT

Data Clean

Provides cleaning, repair, and seismic bracing services for raised-floor environments, as well as the removal of unused cables

www.Processor.com/DataClean3

Trained professionals meet a variety of needs, including establishing best practices for individual locations, identifying issues such as airborne contaminants and cooling inadequacies, routine cleaning to meet ISO or federal standards, and mechanical services to maintain raised-floor environments.

Data Clean provides seismic bracing and the removal of unused cabling (cable mining). It also sells environmental support products such as cooling grommets, perforated floor panels, cable management equipment, HEPA vacuums, microfiber towels, and accessories for raised flooring.

SET3

Located in the heart of hot and humid hurricane country, Florida-based SET3 understands what it takes to keep a data center in optimal condition, both for daily operation and after disaster strikes.

Regardless of whether the job is cleaning raised floors, computer rooms, data centers, call centers, or clean rooms, all SET3 technicians are trained to meet Federal Standards

SNAPSHOT

SET3 Sterile Environment Technologies

Offers critical environmental cleaning, products, and auditing services for data centers, server rooms, and clean rooms, including subfloor cleaning and disaster recovery

www.Processor.com/Set3

209E. Additionally, SET3 provides subfloor sealing and static control services and products such as cleaning chemicals, tacky mats, and raised-floor equipment.

When water, mud, smoke, even hazardous chemicals invade the data center, SET3 delivers complete disaster cleaning services, including damage assessment, equipment appraisal, recovery strategies, cleaning, recovery, and restoration. Data Clean’s disaster response team is certified in HAZWOPER 40 (Hazardous Waste Operations Emergency Response), including Self Contained Breathing Apparatus.

Atlas Sales & Rentals

Since 1979, Bay-area Atlas Sales & Rentals has delivered portable cooling, heating, and dehumidification equipment and services throughout the United States. It offers complete delivery, installation, and maintenance of portable equipment ranging from 1- to 25-ton cooling capacity.

SNAPSHOT

Atlas Sales & Rentals

Specializes in rental and sale of portable air conditioners, heating equipment, and dehumidifiers

www.Processor.com/Atlas

Atlas carries a variety of cooling systems, including air-cooled, water-cooled, evaporative, and split systems. In the event of your data center environment being too cold, Atlas carries multiple heating systems such as portable heat pumps and direct and indirect fired heaters.

For times when the humidity unexpectedly rises in your environment, Atlas offers 24/7, year-round emergency rental and delivery of both standard and low-ambient temperature dehumidifiers.

Spot Coolers

The demand for emergency cooling is growing as is evident by the six new locations Spot Coolers has recently added. The company provides both short- and long-term rental as well as permanent installations of portable heaters and air conditioners.

Based in Florida, Spot Coolers is one of the largest suppliers of temporary air conditioning and heating equipment carrying a variety of solutions, including air-cooled, water-cooled, heat pumps, split systems, and dehumidifiers in a wide range of capacities.

Spot Coolers is a distributor for major brands such as MovinCool and OceanAire. The company’s Transportable Temperature


SNAPSHOT

Spot Coolers

Rents, sells, and services portable models with a variety of cooling capacities

www.Processor.com/SpotCoolers1

Systems division also designs and builds custom solutions. Although most portable heating and cooling equipment is used for emergencies, Spot Coolers recommends having portable solutions on hand when changing environmental conditions within the data center warrant extra heating or cooling in order to maintain optimum efficiency and prevent damage.

For optimal performance, regularly scheduled environmental services for the data center are a worthwhile investment. 

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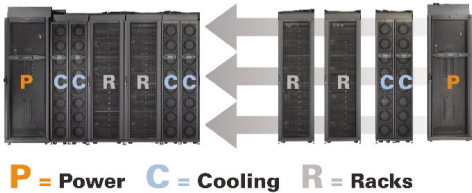
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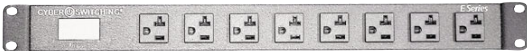
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- Environmental Monitoring
- Fuse Retractor
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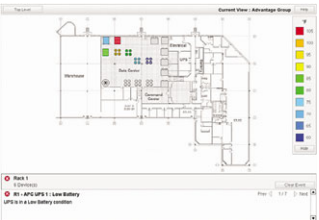
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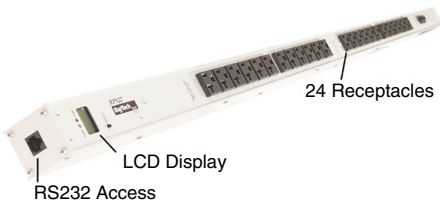
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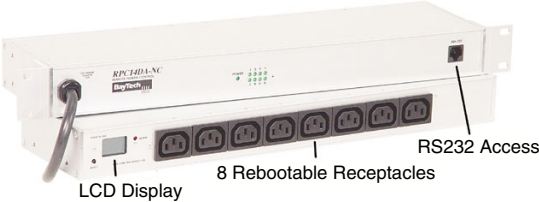
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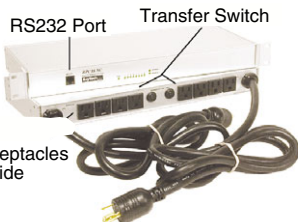
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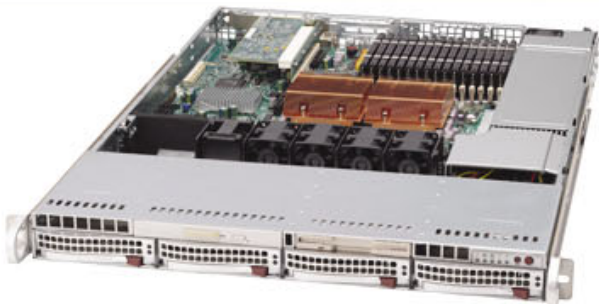
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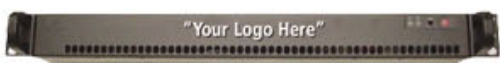
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Maintenance Pointers

Quick Hints For Better Performance

by Ericka Chickowski

THE CONSENSUS AMONG big technology analyst firms is that more than half of the typical organization’s IT budget is eaten up in maintenance costs. In fact, Forrester Research reported that in 2006 maintenance made up 80% of the average IT budget.

It is no wonder. As more organizations put in new systems, they must keep legacy systems and the new ones up-to-date. This takes a lot of work on different levels—maintenance activities can range the gamut, including hardware repair and upgrades, software patching, and upkeep of facilities.

As humdrum as maintenance tasks may seem to the typical IT worker, they are clearly one of the most essential parts of the job. Which is why we’ve decided to provide a few tips to help IT departments improve maintenance efficacy and efficiency to give techies more time to do what they love: innovate.

Visualize The Network

Not properly understanding network dependencies and correlations can really put a crimp on maintenance and troubleshooting activities. Without a firm grasp of complicated and intertwined network setups, a technologist can easily cause a major unplanned outage when taking equipment offline for maintenance or reconfiguring for upgrades.

In order to fully comprehend real-time network relationships, analysts recommend IT departments use automated tools that illustrate network linkages and dependencies in a highly visual manner that is accessible to any technologist.

“By rapidly gathering and interpreting business intelligence about their IT infrastructure, users can make decisions about resource requirements and understand the changes involved in making changes to the infrastructure,” analyst Elisabeth Raigne notes in an IDC report on the topic.

Some tools in this market include HP OpenView TeMIP Fault Management (www.hp.com), ADVIZOR Server (www.advizorsolutions.com), and CA’s

NetViz Enterprise (www.Processor.com/CA).

Inventory For Patching

During the last several years, the automation of patch management has been a real

As humdrum as maintenance tasks may seem to the typical IT worker, they are clearly one of the most essential parts of the job.

lifesaver for IT administrators. But Don Leatham of PatchLink (www.Processor.com/PatchLink-Corp) says that to truly get the most benefit out of an automatic patch management system, organizations must keep an up-to-date inventory of the systems they are updating.

inventory,” says Leatham, who acts as director of solutions and strategies for PatchLink. “A lot of times people are just spraying patches out there and just praying that they take. But to get a true understanding of what you need to do in terms of patching, and allocating resources and knowing when a patch comes out that has a critical aspect to it, you really can’t assess the impact of that vulnerability to your organization without having that detailed inventory.”

On top of that, the inventory can’t exist all by its lonesome, Leatham says. It needs to be hooked into your patch management system.

“If that inventory is not tied into your mechanism for patching, then it really doesn’t do you that much good because then it is a manual process to take data from your inventory system over to your patching system,” he says.

Use Application Performance Management Strategies

According to the analysts with Butler Group, poor software performance costs the world’s industrialized nations \$85 billion annually.

Rather than throwing more network infrastructure resources at the problem, experts suggest optimizing all systems for the applications you are running through application performance management, or APM.

The idea is to give visibility and set metrics around applications so that key performance bottlenecks can be found. According to Network Physics in the whitepaper “Demystifying Optimization,” APM is best carried out through a routine with the acronym of ABTSO: audit, baseline, troubleshoot, secure, and optimize.



“We feel that it is absolutely critical to have a really accurate inventory of all of your network assets and then to extend that inventory into the software that’s been installed and then on top of that a patch

Organizations should conduct activities in each area on a cyclical and regular basis in order to account for daily changes to the infrastructure that will affect application performance.

Biggest Immediate Payback

Eliminate human error. “Human error contributes to about 70% of data center outages,” says Mike Hagan, senior vice president at Lee Technologies (www.Processor.com/LeeTechnologies). “What takes place is during a maintenance activity, if there’s not a written methodology associated with how to perform that maintenance, the humans associated with it are very likely to cause you an outage.”

Hagan says that if he were an IT manager with limited resources who needed to decide on only one maintenance area to funnel his money, he’d put it into developing a maintenance plan and a documented method of procedure for all maintenance tasks. “The most fundamental mistake that I see is that organizations simply do not put a plan in place to meet their specific uptime needs in how they are going to approach preventative maintenance,” he says. “Normally they just kind of start doing it.”

Forget About Your Technology

OK, so don’t completely forget about your technology. But do keep in mind that no matter how well-maintained your hardware is, how well-configured the network is, and how well the software performs, none of it matters if your underlying facility infrastructure is falling apart.

“I frequently will see organizations spend a significant amount of money on disaster recovery plans, business continuity plans, IT-related hardware, and software maintenance costs and fees, but they don’t put the same amount of time or money or effort into the infrastructure that supports all of that,” says Mike Hagan, senior vice president at Lee Technologies (www.Processor.com/LeeTechnologies). “So my point normally is, ‘You spend all of that money, so what?’ If the infrastructure is not there to support it, that is where the challenge is.”

Hagan stresses that facility maintenance should be the top priority in any IT maintenance plan because without a solid underlying infrastructure, your well-maintained servers just won’t run. ■

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Is Your Data Center Prepared?

Tips For Better Disaster Preparedness & Recovery

by Elizabeth Millard

WITH AS MUCH AS data center and IT managers have to do, preparing for disaster can sometimes get shuffled near the bottom of the tasks list. But as anyone who’s been through severe data loss or network sputtering knows, making sure that a recovery plan is in place can go a long way toward getting an enterprise back up and running. Here are some tips for making sure a company isn’t severely impacted by a disaster and a few ideas about post-disaster recovery.

Do A Regular Fire Drill With Vendor Involvement

As part of preparedness, it’s vital to do regular disaster recovery testing, notes Richard Heitmann, vice president of product marketing for EVault (www.Processor.com/EVault-Inc). Companies should know how long it will take to recover data and what steps are involved in the event of a disaster. Running through several disaster scenarios can lessen panic and missteps if an event should occur.

Enterprises don’t always have to come up with their own plans, though. Many vendors that are represented in a heterogeneous mix of hardware and software can be helpful in the case of data disaster, and a data center manager should schedule several conversations about what they can do if a problem should happen. How quickly can a network appliance be replaced? Can a technician be dispatched within 24 hours? Create a comprehensive list of questions and discuss options with vendors.

“Choose a vendor that provides comprehensive disaster recovery planning and

Running through several disaster scenarios can lessen panic and missteps if an event should occur.



testing, as well as implementation services to ensure full business continuity,” says Heitmann.

Increase WAN Bandwidth Efficiency

Most WAN connections have limited bandwidth, so sending a large collection of files or a large database for backup isn’t feasible, leading many SMEs to come up with different alternatives. But being able to use the WAN for frequent backup and having it available in a recovery event could prevent problems and allow for faster recovery, says Fred Pinkett, vice president of market development for ExaGrid Systems (www.exagrid.com).

SMEs should consider whether their environments could benefit from disk-based backup products that use advanced data reduction technologies. With these types of systems, there’s a significant reduction in the amount of bandwidth consumed on a WAN, as versions of files are transmitted to another site, Pinkett notes.

“In most environments, only about 2% of the overall data changes from week to week,” he says. “An advanced disk-based backup system moves the 2% that changed, since the full backup job already resides on the second site system.”

Implement System Imaging Strategies

Protecting hardware with the use of uninterruptible power supplies is a good protective step, but also important is implementing effective data security tactics. In addition to putting antivirus and antispam in place,

Acronis (www.Processor.com/Acronis-Co) Chief Executive Walter Scott suggests doing more with imaging.

“Create a base image of the system fully configured and put that image away so that if you ever need to re-create the system, you have a known, good base image,” he says. Then, schedule the creation of a full image weekly, as well as a combination of incremental or differential images during the week, whatever is most appropriate for server, workstations, and laptops.

Once the images are in place, Scott recommends testing regularly, particularly running employees through a drill occasionally so they know what to do. Also, he cautions against relying on mirroring.

“Mirroring data is not the same as backing it up,” he says. “Just mirroring your server drives doesn’t guarantee they’re protected, since a virus will propagate to the mirror as well.”

Master The Art Of Bare-Metal Restores

Although it’s painful, enterprises do sometimes lose an entire server, and it may need to be replaced with a new machine, notes Scott. This usually involves building a system from scratch, with an unformatted hard drive, without an operating system. In the worst-case scenario, he notes, the IT administrator not only has to reinstall all the system software, but it has to be installed on dissimilar hardware.

In that case, it’s not the backup that’s important, Scott says; it’s restoring the backup. Most of today’s imaging software

Quickest To Implement

Establish a relationship with a data recovery service. Even if an SME decides to create a disaster preparedness and recovery plan on its own and puts in hardware and software for the job, it’s a good idea to have a chat with a data recovery service just in case it’s needed in the future, says Jim Reinert, director of software and services at Ontrack Data Recovery (www.Processor.com/Ontrack).

“Data recovery is often the missing element of disaster recovery planning, and having an existing relationship with a data recovery company can serve as a ‘Hail Mary’ attempt when all other options have been exhausted,” he says. Talking with several local services about what they offer before a data disaster is useful in choosing a good vendor and minimizes the type of scrambling that would have to be done if the discussion was held after a disaster has occurred.

requires an IT manager to do a fresh install on dissimilar hardware, and some allow the manager to restore from an image. But Scott believes it can be difficult when using backup software that forces the user to first strip out the security identifier number and all network information because once an image is restored, it can take hours to reconfigure the server.

A more favorable solution may be to look for products that offer a universal restore option that maintains the server’s identity. “When this product is used, the IT manager needs only to add new hardware drivers when prompted,” Scott says. “When the system reboots, it will be live on the network with all of its identity and configurations intact.”

No matter how a system gets backed up, make sure that the information and data can be restored properly, he adds, even if it’s on another type of hardware, server, or workstation, or even a virtual machine. [E]

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New Manager? No Worries

Tips For New Data Center Managers

by David Garrett

MOST IT MANAGERS DID NOT INTEND to be IT managers. They were software designers, network admins, or storage experts who excelled at their jobs, got promoted, and then found themselves tasked with responsibilities that had nothing to do with the daily work of programming, networks, or storage. But now that you're a manager, you'll need to know about budgets, people, projects, and how they come together—or fail to—in today's enterprise.

Manage Money

"The biggest challenge confronting a new manager in IT is assuming responsibility for more and larger financial decisions," says Darin Stahl, research lead for the Info-Tech Research Group. "Being technically astute may be what got the new manager promoted, but it will be quickly obtaining the financial skills necessary to plan, oversee, and execute a large data center budget that will keep them there."

Stahl offers a few pointers on how to do it. First, he says, build your rapport with your controller or CFO and learn at least four key points: enterprise accounting processes, timelines, reporting requirements, and financial performance expectations.

You should also verse yourself on key points in accounting, learning the details of capital budgeting, asset valuation and depreciation, break-even analysis, and a slew of acronyms you're bound to hear bandied

about: TCO (total cost of ownership), NPV (net present value), asset valuation, and, of course, ROI (return on investment). "Today's enterprises must have IT managers who can manage the business of IT," says Stahl.

Use Advanced Project Management

As a technician, you were assigned work. As a manager, you assign work. That means you're responsible for how and when it gets done and how it fits into the bigger picture.



Chances are you've been exposed to the basics of project management before—a project plan here, a statement of scope there. Now it's time to go further; there's more to the art and science of running projects than simple plans. From PERT and Gantt charts to

resource loading and cost-benefit analysis, project management has a bevy of tools that can help you make the trains run on time.

Upgrade Your People Skills

"As IT leaders move from a smaller technical group with a limited staffing control to managing a larger group or hierarchy, they frequently face a personal skills gap," says Info-Tech's Stahl, who notes that good managers can devote nearly half their time to dealing with staff issues.

If your people skills need an upgrade, remember that help is at hand. "Seek out guidance from internal HR professionals on existing processes and priorities," says Stahl. "The internal HR professionals can also help the new IT manager to actively pursue and select relevant external courses to close their skills gap."

And you can also practice the oldest method of learning: observing. Find the managers with the best people and political skills and watch how they handle conflicts, deal with competing agendas, and keep people happy.

Fight Low Morale

According to a recent CareerBuilder survey, nearly a third of all workers call in sick when they're not, with 10% taking three or more fake sick days per year. A harmless practice? Not at all. When employees are absent, work falters. Projects run behind, and results suffer. And while

CareerBuilder logged some amusing excuses for fake sick days (including one employee who claimed his mother-in-law poisoned him, and a second who claimed his car was charged by a buffalo that escaped from a game reserve), the most basic reason for employee absenteeism is low morale. Nearly half of CareerBuilder's AWOL respondents said they just needed time to relax.

Improving morale can be hard because it involves changing the culture of your office. Start by asking yourself a few key questions: Does your team work too hard? If so, why? Who's feuding with whom? Can it be fixed, and if not, is it time for someone to leave? Are there pay problems? Poor equipment? Remember that anything that leads to unhappy employees leads to lower productivity. ■

Quickest To Implement

Employees are more than mere workers; they're people, with lives, cares, and concerns outside the office. If you'd like to get to know them better—and understand their office concerns and career goals—meet them outside the workplace. Take your team members to lunch, and not in the cafeteria or a restaurant where other office members often go. Why? Because people talk more freely about the office when they're away from it.

Just be sure not to cut into your employees' free time. Forced get-togethers, socials, dinners, and parties on the evenings or weekends can be seen as one more work obligation, something to attend because attendance is expected.

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Tips For Better Security & Compliance

Continued from Page 1

director of product management at Sendmail (www.Processor.com/Sendmail-Inc). You never know exactly what’s under the hood, but as a safeguard, you should get (from your vendors) a statement of network ports that need to be accessible to operate any given appliance. Whenever a new security appliance is deployed, it should be tested for remote vulnerabilities. Be wary that some vendors have built-in back doors for their tech support departments to access the box.

Prevent Data Leakage

“Our customers have identified this as a top security priority—ensuring that sensitive/confidential business (e.g., customer data) information stays inside the organiza-

tion and stopping and identifying people that are maliciously trying to move this confidential information outside their own companies,” says Andrew H. Ryan, senior manager of public relations at Symantec (www.Processor.com/SymantecCorp). “Our customers want to ensure this information is protected and does not leave without their permission.”

Symantec offers products that sit at the gateway, notes Ryan, such as Symantec Mail Security, and it’s on those servers that traffic is examined, and confidential information is prevented from leaving. Additional offerings include products that sit at the desktop level, such as Symantec Critical System Protection, to protect against data being transmitted off individual PCs and laptops.

Three E's: Establish, Educate & Enforce

The first step is to get visibility on usage. Organizations need an accurate understanding of what employees are doing—not just with IM but also peer-to-peer applications, free VoIP services, Internet sites, and Web traffic. “After visibility is gained, then establish, educate, and enforce,” says Frank Cabri, vice president of marketing at FaceTime (www.Processor.com/FaceTimeComm).

Establish acceptable use policies based on input from the business groups. Agree on what is allowed and not allowed and what reporting is required, adds Cabri. Educate your employees on the new policies through a written Acceptable Use Policies document and through real-time notifications on the network. For example, if an employee attempts to send a spreadsheet out over public IM, look for solutions that can provide warnings and coaching to

users in real time that this action is unacceptable. This complements the written policy (let’s face it, most employees aren’t going to read it) with real-time education.

And last, notes Cabri, enforce the company policy by implementing solutions that provide security, compliance, and management for greynet applications such as IM, P2P, Skype, and other real-time collaborative applications. It’s difficult to predict the impact of all the potential security threats in the future; however, FaceTime does not see greynet applications declining but, instead, being adopted by more and more employees. These applications are compelling because they help employees multitask, collaborate, and be more productive in their professional and personal lives.

Database Monitoring First

“The lion’s share of a company’s information is stored in databases,” says William Madaras, PR manager at IPLocks (www.Processor.com/IPLocks-Inc). “Database security is an issue that concerns every level of IT professional. And as news of compromised data continues to grab headlines, organizations worldwide are seeking solutions.”

For financial details and customer information, the master records are always in a database, notes Madaras. The best way to protect these critical assets, prevent theft, and deter fraud is to monitor critical data. Build controls that ensure all data access conforms to specific business needs and learn how to recognize potentially unscrupulous behavior. It sounds counterintuitive, but once data theft or financial fraud becomes public, it may be impossible to repair the damage. ■

Most Unusual Tip

Notes Andrew H. Ryan, senior manager of public relations at Symantec (www.Processor.com/SymantecCorp), Symantec has identified a type of attack that takes advantage of your most private life—snoopware. This program enables attackers to remotely activate your cell phone’s microphone and “listen in” on your life, whether you’re on a call or not. Hackers can consult your calendar and listen in to meetings because your phone is always with you. Companies are now realizing that these mobile devices can access the corporate network, and, consequently, there is a great deal of sensitive data on these devices. Symantec offers software products that not only secure the device while the employee is using it but also protect it against unauthorized people accessing the data stored on that phone in the event it’s lost or stolen.

Biggest Timesaver

According to William Madaras, PR manager at IPLocks (www.Processor.com/IPLocks-Inc), for IT organizations, automated reporting is the biggest timesaver. If you are not surprised by this response, you should be because most companies have manual Sarbox controls and reports for IT. IT not only has to provide systems and services to its customers but also reports on service-level agreements, effectiveness of controls, and verification of system security to internal security, regulatory, and audit organizations. Because these external stakeholders each have a different set of requirements, having prepackaged reports for different stakeholders saves a lot of time.

Safeguarding Against Logic Bombs

Continued from Page 1

way of finding a bomb is after the fact, when it has detonated and done its damage. As we all know, companies are loathe to report successful attacks.”

Melancon says there are common approaches being used to detect and prevent logic bomb attacks. He notes, “Many companies use an automated, independent detective control (such as Tripwire Enterprise) or random change audits to monitor the IT infrastructure for changes. They compare changes found with known, authorized changes to detect unauthorized activity. These unauthorized changes are flagged and investigated, giving IT the potential to catch an unauthorized change before it can create a problem.”

Another product is from Solidcore Systems (www.solidcore.com). Its S3 Control is a software-based real-time tracking and validation module. A central console enables single-point administration and system monitoring, and individual endpoints can also be controlled.

Melancon says automated processes for detecting unauthorized changes are preferred because they tend to discover inappropriate changes more quickly and consistently than

manual checks and can deal with higher volumes of changes. Also, automated controls require less effort in the long run.

Winters points out that small to mid-sized enterprises can indeed be safeguarding their IT infrastructure from logic bombs. He says, “Companies of all sizes should define and implement clear policies and controls, outlining which users have access to which systems, and clarify what actions are allowed to limit potential harm. This is often referred to as SOD (separation of duties). Controls should also be enforced to monitor computer systems and their applications for unauthorized changes. This is the single most powerful way to detect the installation of unauthorized code like a logic bomb. The real-time detection of such changes should trigger an alert to supervisors, so immediate remediation can happen.” Melancon says SMEs are not alone in their vulnerability to logic bombs. “However,” he says, “they are often less likely to have automation, controls, and processes in place to detect them than large enterprises. We find that many IT organizations manage by faith, not fact. And when it comes to detecting unauthorized activity in the IT infrastructure, IT management must begin managing by fact. In essence, a change you don’t see or understand introduces risk you cannot manage.”

Automatic Prevention

So how can companies automate the identification of activity to avoid threats such as logic bombs? Melancon says, “We recommend that companies implement technology to support this process, while making it even easier for employees to do the right thing. This starts with clear policies and expectations from management. For example, many organizations declare, ‘Our organization will not tolerate unauthorized changes to our production infrastructure. We have implemented controls to automatically detect and document unauthorized changes. Any employee making intentional unauthorized

changes will be subject to disciplinary and/or legal action, as the situation dictates.”

Tripwire recommends the following types of automation: a change management and authorization system (for example, Tripwire’s Remedy or HP’s [www.hp.com] OpenView Service Desk) that guides the change process, tracks status of changes, and creates an audit trail of authorized changes; deploying an independent detective control to automatically monitor the environment for all changes (authorized and unauthorized); and implementing a process and technologies to put things back when unauthorized changes are detected.

Winters says some products can prevent the installation of logic bombs. He explains that these products are referred to variously as “change detection,” “configuration auditing,” or “change auditing” software. “Products like Active Reasoning System 5,” Winters says, “map a company’s IT policies and controls to their infrastructure, including systems, files, OSes, applications, databases, and network devices. Agents are installed on all systems to continuously monitor system events, activities, and changes.”

Winters notes all relevant activity is sent by the agents back to a central server where it is reconciled with IT controls, configuration databases, and change control information, to detect activities that violate policy. “In this way,” he says, “SMBs can detect the rogue employee trying to install a logic bomb by several indicators: The employee is not authorized to access the system; the employee is not authorized to change the resource in question (OS, file, database, etc.); the employee is not authorized to make the change when he’s making it.”

Melancon asserts that while logic bombs can be a serious threat to IT and the business, it has been found that the majority of service-impacting IT incidents are actually caused by employees who made a well-intentioned but undocumented and unauthorized change. “The good news is, automation and IT

processes will protect IT systems from malicious code entering the production environment.” He says SMEs that have invested in change detection software, such as that from Active Reasoning or Solidcore, will know immediately and will be able to correct the action long before any bombs explode. ■

Safeguarding Your Infrastructure

Tripwire (www.Processor.com/Tripwire-Inc) offers the following advice to small to mid-sized enterprises to safeguard their IT infrastructure from logic bomb attacks:

- “Create a solid, written change management policy to establish ‘guardrails’ for authorized and unauthorized change. In this way, organizations are able to define and identify anomalous activity and react quickly.
- Establish a detective control that alerts management to any unauthorized change. By doing so, you will learn when something within the infrastructure has changed that you did not expect. A detective control also acts like a radar gun or a speed camera. Just as drivers will slow down when they know their speed is being watched, employees will be much less likely to make unauthorized changes, such as planting a logic bomb, when their changes are being monitored and they are likely to be caught.
- When an unauthorized change is detected, don’t let it slide, or your policies will quickly become ‘paper tigers.’ It’s essential that employees see clear evidence that you can not only detect undocumented and unauthorized changes but that you are also willing to take action when they break the rules.”

Malicious Code Dictionary

William R. Winters, president and CEO of Active Reasoning (www.Processor.com/Active), offers the following definition for a logic bomb:

“A logic bomb is a piece of software designed to harm a company’s IT infrastructure or the data residing on it. These bombs are typically triggered by certain conditions such as a specific date or the employee’s termination. For example, a disgruntled programmer might install a logic bomb designed to delete important files or databases, like the payroll system, when he leaves the company.”

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Product



Releases

PHYSICAL

Power Protection

■ **Telect** released a GMT fuse panel that includes universal operating voltage and a design that’s suitable for wall-mounting and standard equipment racks. The 50A dual-feed 5/5-position panel accommodates GMT fuses rated up to 15 amps each to handle power running to various network communication equipment. The panel runs automatically at ±24VDC or ±48VDC, depending on where you install it, to enable protection of office, data center, and cell tower communication equipment. The panel also gives you front access to inputs, outputs, alarms, LEDs, and fuses, all in a small form factor design that’s about 2 inches deep by 1.75 inches high.

Racks & Furniture

■ **PC Guardian** released the latest item in its Ezolution Combo Lock series, the Master Coded Combination Lock. The Master Coded Combination Lock was designed for any organization that wishes to physically secure computers and peripherals that are

equipped with a security slot. With the new lock, IT staff tasked with keeping track of hardware can now use PC Guardian’s ComboGenie to override or change lost or compromised combinations. Features include the SteelShield Reinforced Bumper, an easy-to-use dial pad, a rotating and pivoting lock body, compatibility with multiple cable strengths, and Web site combination recovery. Authorized users and IT staff can also reset the lock with a new combination. The Master Coded Combination Lock will be available in May starting at \$39.95.

COMMUNICATIONS

Telephony

■ **Cisco** announced new additions to Cisco TelePresence for virtual meetings. With TelePresence, companies can schedule meetings in many locations and include participants located outside of the corporate firewall. The TelePresence Multipoint Switch supports as many as 36 simultaneous physical locations. Participants may be displayed by location or by individual screen. Cisco’s new Secure Business to Business TelePresence technology lets companies

include participants in virtual meetings, even if they are located outside the corporate firewall. Cisco has also added a new function, Auto-Collaborate, which lets virtual-meeting participants share files, documents, and objects with an HD document camera or by using a notebook computer. Finally, Cisco has also added Cisco Telepresence Virtual Agent for call center environments.

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■ **Polycom** expanded its line of standards-based VoIP desktop phones with three new models. The SoundPoint IP 330 and 320 are two new entry-level models that feature a full-duplex speakerphone with Polycom Acoustic Clarity Technology for natural, hands-free conversations, an easy-to-read LCD, and integrated PoE support. The SoundPoint IP 330 features a dual-port 10/100 Ethernet switch for LAN and PC connection. The SoundPoint IP 320 has a single 10/100 Ethernet port. The SoundPoint IP 550 four-line VoIP desktop phone includes Polycom HD Voice technology; a high-resolution, backlit, graphical LCD; integrated PoE support; and an XHTML micro browser. The SoundPoint IP 550, 330, and 320 support IEEE 1329 Type 1 full-duplex audio

to allow for natural conversation even in double-talk situations. The Polycom SoundPoint IP 550 is now available. The Polycom SoundPoint IP 330 and 320 phones will be available for order next month.

Wireless

■ **Blue Vector** has made available its Mobile Edge Manager, an appliance that uses wireless cell data and Wi-Fi Network access to add data integration, local business logic processing, and over-the-air reconfiguration to any RFID reader. Users can configure, monitor, and maintain the Mobile Edge Manager remotely via the Web. The manager specifically handles inventory and asset management business rules that can consult/update data from such enterprise applications as SAP and Oracle. In addition to managing various industrial sensors, the manager directly controls and manages UHF, HF, semi-active, and active RFID readers. GPS abilities are also included. The Mobile Edge Manager offers automatic device health monitoring, a completely self-contained battery backup, and operation for extended periods without external power.

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Staco Keeps The Power On For The Enterprise

Energy Products Manufacturer Adds Parallelable UPS Devices

by Joseph Pasquini

. . . .

AS EVERY DATA CENTER MANAGER will attest, the need for clean, uninterruptible power permeates any operation, including the small to midsized enterprise. Without a consistently reliable power source, servers and telecommunications equipment cease functioning, and productivity grinds to a standstill. Targeting the needs of corporate entities that traditionally require scalable solutions capable of handling larger electrical loads, Staco Energy Products has added the TreStar P Series of parallelable UPS devices to its product lineup. Designed to address the three-phase electrical requirements of the enterprise and similar mission-critical environments, the TreStar P Series is available from Staco in both 125 - 150 kVA and 180 - 225 kVA formulations. In addition to offering

data centers protection against blackouts, each double-conversion unit features a digital control system that eradicates all overload situations along with flicker, transients, and frequency variations. According to Staco, the TreStar P Series’ new digital control is capable of processing signals up to 10 times faster than previous analog methods. User access to the TreStar P is provided via a front control panel and its corresponding LCD menu. Optional network solutions software, as well as an SNMP adapter, are also available from the company. When used in conjunction with an installed 7% harmonic filter, each TreStar P model delivers 93.5% efficiency at less than 3% total harmonic distortion. The filter is available as an option on the 125 - 150 kVA models and comes standard on the 180 - 225 kVA models.

The Staco UPS can provide continuously regulated output to within ±1% for a balanced load (±3% for unbalanced loads) while simultaneously both enduring a 25% voltage overload for up to 10 minutes and being fed a voltage input ranging from 15% to -20% of nominal. The 125 - 150 kVA models offer an optional 208 VAC input and output. Additional options for the TreStar P Series include a Parallel Kit, an External Maintenance Bypass, and an extensive assortment of batteries. All TreStar P cabinets provide seismic mounting features and are UL 1778 Listed. Jim Jones, Staco’s Western regional sales manager, says that the TreStar P offers a level of scalability not found elsewhere within the crowded UPS marketplace. “The TreStar P, with its capability to parallel eight modules for capacity or redundancy without a paralleling cabinet, drastically reduces floor space and installation time,” says Jones. “Adding other modules in the field is easily accomplished by connecting



SNAPSHOT

Staco TreStar P Series

\$61,000 for 125 kVA models
\$77,000 for 225 kVA models

Three-phase, parallelable UPS units offer scalable protection for any mission-critical application

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the modules with a communication cable between modules, and shutdown of the customer’s load is not required.”



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Product  Releases

Continued from Page 16

■ **Kentrox** released the W1100 Wireless WAN Gateway for accessing wireless data services, which enables carriers and enterprises to use cellular technology increasingly more for various network applications. The W1100 includes support for HSDPA, EVDO, UMTS, EDGE, GSM/GPRS, and CDMA. A PC Card installed in the W1100 provides a WAN interface. Additionally, an Ethernet LAN connection connects the W1100 to routers and other existing network equipment. The W1100 uses an SPI firewall, while a VPN provides encryption protection. Kentrox says the W1100 improves cell site network performance and reliability using the cellular network for remote access to manage the site. The W1100 is now available.

.

■ **WildPackets** announced OmniSpectrum v3.1, a mobile spectrum analysis software and notebook card combo that enables network engineers to troubleshoot RF interference problems with WLANs. Version 3.1 includes an instant replay feature, assessment for interference severity, and tools for

“friend or foe” identification of 802.11. The software also features analysis capabilities to identify co-channel interference and to chart signal-to-noise ratio. OmniSpectrum v3.1 can identify which channels are over-utilized and by what devices, as well as whether the interference sources are 802.11 or non-802.11 devices, such as cordless phones, microwave ovens, and security video cameras. By combining OmniSpectrum v3.1 with WildPackets OmniPeek network analyzer, engineers can perform advanced troubleshooting for layers one through seven of a WLAN.

END NODES

KVM & Console Access

■ **Adder** announced AdderLink ipeps (IP engine per server), which are KVM-via-IP devices. They let computers use RealVNC client software and Internet or corporate network connections to provide remote computer access and control. It also supports adder.net enterprise management software, which offers secure, central user access management. Adder plans to release the AdderLink ipeps in Q3.

Mobile

■ **Motorola** announced the ML910 Rugged Notebook and MW810 Mobile Workstation. The ML910 Rugged Notebook offers an Intel Core Duo 1.66GHz processor and ATI Radeon X1400 discrete graphics controller with 128MB dedicated video memory. The notebook computer includes a hard drive heater for startup and operation in freezing temperatures and has diagnostic software that monitors internal conditions and prevents outages due to extreme heat and cold. The ML910 Rugged Notebook also offers fingerprint authentication. This rugged notebook can integrate up to four radios, including WLAN, Bluetooth, GPS, and WAN. The fully rugged MW810 Mobile Workstation is a vehicle-mounted computer that offers Intel Core2 Duo processor options and a sunlight-readable display. The MW810 Mobile Workstation also supports multiple internal radios for seamless multinet network roaming. The MW810 Mobile Workstation has a versatile, three-piece design with separate display, processor, and keyboard. Users can customize configurations to suit their needs.

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■ **Psion Teklogix** has released details about its 8515 Vehicle-Mount computer, a full-functioning system available in a compact, lightweight frame that’s suitable for vehicles with limited mounting options, such as forklifts. The system has a 640 x 480 color touchscreen display, runs Windows Embedded CE 5, and includes an XScale processor and Bluetooth connectivity. Additionally, the PC includes a full keyboard with 10 dedicated function keys, two USB host ports, a USB device port, and a serial port. The PC includes a microphone/speaker for push-to-talk ability and optionally includes Psion’s Teklogix Mobile Control Center for the deployment and management of mobile devices and related peripherals. The 8515 will be available in May.

Printing & Imaging

■ **Multi-Tech** announced details about the FF120 and FF220, two fax servers in the company’s FaxFinder line. The turnkey units include all hardware and software needed to send and receive faxes via a PBX that has digital line support. As incoming faxes arrive, the server will route preassigned fax

Go to Page 18

Scalable Storage Without Racks Of Equipment

Coraid Offers A Low-Cost, High-Capacity Tower Configuration

by Darrell Dunn

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OPTIONS FOR STORAGE continue to expand, with Coraid introducing its first SAN appliance in a tower configuration that is suited for use by small to medium-sized enterprises and others requiring local access to large amounts of disk space that co-workers can share.

The SR1521T can hold up to 15 standard 3.5-inch SATA drives for a total of up to 11.25TB of shared network storage. The tower can hold a customer’s choice of disk drives, and as capacity needs increase, customers can add additional towers to the network using an Ethernet connection. The hard drives on the SR1521T are hot-swappable.

The SR1521T is Coraid’s first storage offering in a tower format, providing a “simple way to do Ethernet storage that can

be applied to an office environment with shared storage requirements,” says Jim Kemp, CEO of Coraid.

Based on an AoE (ATA over Ethernet) protocol, the tower is native for use in Linux environments and has software drivers available for Mac OS X, Windows, Solaris, and FreeBSD.

As a storage protocol, AoE is simpler to implement than other SAN technologies, Kemp says, and is cheaper than alternative iSCSI and Fibre Channel-based storage devices. AoE eliminates the need for TCP/IP processing and additional network adapters. Servers in a business access the storage appliance using ordinary Ethernet connections.

“There is a significant segment of users that will prefer a freestanding tower rather than something they’d have to rack up and have in a data center with all the



SNAPSHOT

Coraid SR1521T EtherDrive
\$4,995
A low-cost alternative that moves SANs directly into the office in a tower configuration for a shared resource
www.Processor.com/Coraid

associated issues,” Kemp says. “Now you can have networked storage without racks of equipment and the management requirements that come with that type of installation.”

In addition to Linux users, the tower is expected to particularly appeal to small offices involved in digital and video content creation based on Mac OS. The tower will provide a large storage base that colleagues can easily share.

“That is a very logical segment for this product. It’s a fairly simple technology that can deliver good value to small companies or even larger businesses with remote offices,” says Mike Karp, an analyst with Enterprise Management Associates.

“This is a lot of storage for a little money,” Coraid’s Kemp says. “This tower is very simple and efficient, and being Ethernet-based is quite suitable for high-speed storage access. Being based on a technology that is widely deployed eases any learning curve.” ■

Security

www.Processor.com/Enforcer

MARCH 23, 2007



Enterprises must ensure only authorized users and security compliant devices participate on the network. Compliance breaches put data at risk, cut productivity, and waste IT resources. **Lockdown Enforcer** is an all-in-one network access control (NAC) appliance that integrates identity and knowledge of device health to continuously automate security policy enforcement.



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Control Who & What Is On Your Network

Lockdown Enforcer Delivers Powerful & Precise Network Access Control

LOCKDOWN NETWORKS' Lockdown Enforcer puts IT back in control of the network by automating access policies to keep the network safe from at-risk devices and unauthorized users. With Enforcer, all devices on the network stay in continuous compliance with security policies and access to networks is smoothly automated, even for guest users.

Lockdown Enforcer supports all networked devices and is an overlay to existing networks. And as an out-of-band appliance, it won't slow your network down and will scale to support next-generation networks, even 100G.

Powerful Policy Engine

Lockdown Enforcer's Precision Policy Engine integrates identity, device health, location, and other factors to determine which network users should be on the network and to assist in device remediation when compliance problems occur. Authentication and other policy inputs place devices into production, guest, and private quarantine VLANs. If a device is quarantined for "health" violations, a Rich Quarantine Environment enables end users to self-remediate their systems without help-desk support.

A new feature for Lockdown Enforcer is the ability to directly input syslog notifications into policy actions, enabling any IPS, IDS, NBA, or other security system to trigger policy actions, from quarantine to notification.

Enterprise Features

Lockdown Enforcer integrates with any managed switch and most popular WAPs. No hardware or software upgrades are required. It communicates with managed Layer 2 switches via SNMP and a command-line interface and provides the same coverage for wireless access points.

Support for multiple authentication mechanisms. Enforcer supports 802.1x port-based authentication, Windows authentication, RADIUS, and Web logon ensuring the most appropriate type is applied to users and devices.

Agent or agentless device assessment. Enforcer audits devices for virus and spyware protection, personal firewalls, OS versions, patches, DHCP servers, unauthorized services, and more. Enforcer uses agentless scans to ensure minimal impact on client devices.

Integrated authentication server. Enforcer works with existing RADIUS servers and also includes a standalone authentication capability using a built-in RADIUS server.

Integrates with Directory Services. Enforcer's native LDAP support ensures compatibility with popular enterprise directory services, letting you utilize user and group membership data to

create policies at the group or individual level.

High availability. Lockdown Enforcer is available in a 2U form factor, with redundant processors, disks, and power supplies. Both the 1U and 2U versions of appliance can operate in redundant pairs for maximum network availability.

Automatic access. Enforcer dynamically assigns users to production, guest, or quarantine VLANs based on policy. Lockdown uses private VLANs to ensure quarantined devices are isolated from one another.

Configurable audits. Enforcer allows audits to be designed to suit specific requirements. In addition to preset scans, you have control over audit depth and schedules.

Syslog integration. Allows IDS, IPS, NBA, or other systems to directly trigger policy actions.

Aggregates and baselines vulnerability data. Enforcer combines real-time and historical audit results to increase accuracy of assessment and establishes baselines



to create effective, actionable data, avoiding unneeded quarantine events.


Centralized reporting. Enforcer generates real-time and historical reports available in a number of exportable formats. Consolidated data can be presented using predefined or custom formats to support enterprise-wide management, operations, and compliance needs.

Workflow and notification. Lockdown NAC supports two-way integration with help desk and enterprise management software and integrates with workflow ticketing systems to accelerate remediation. Tickets are automatically assigned based on policy and output is generated via email, Syslog entries, or SNMP traps.

Backup/restore. Configuration and audit/enforcement data can be uploaded or downloaded to any workstation with a Web browser. Lockdown includes a tool to automatically generate backup files.

Lockdown Enforcer

All-in-one NAC appliance that ensures all networked devices adhere to device security policies
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www.Processor.com/Enforcer



Enforcer Hardware Specifications				
	Processor	Network Interface	Power Supply	Weight
Lockdown 1U	Celeron	1 x 10/100/1000 Ethernet	1 300W ATX, PSU with PFC power supply	15 pounds
Lockdown 2U	Dual Xeon	1 x 10/100/1000 Ethernet	1 500W ATX, PSU with PFC power supply	46 pounds

Product Releases

Continued from Page 17

numbers to analog ports connected to the servers. The servers convert the fax to a PDF or TIFF file and attach it to an email that's sent to the proper recipient via any Windows application using bundled fax client software for Windows. The Fax-Finder servers support "Super G3" ITU V.34 fax communications, 2D compression, real-time fax compression conversion, and Error Correction Mode. The FF120 is priced at \$699, while the FF220 is \$1,099.

Server

■ **Bull** announced its new fault-tolerant server for Windows, the NovaScale R620. Using dual-core Intel Xeon 5100 processors, the R620 is built with redundant components, memory protection, and seamless switchover. The result should be 99.99% uptime.

Storage

■ **AMCC** released its new 3ware 9650SE-24M8 24-port SATA RAID controller (\$1,595). Its hardware-based RAID 6 capability can survive up to two drive failures in an array. The controller also calculates double-parity simultaneously instead of consecutively, the company says, to speed RAID 6 write performance as compared to competitors' offerings.

■ **Kanguru Solutions** released the Kanguru Clone, a high-speed, standalone hard drive duplicator. The Kanguru Clone helps you back up, store, and duplicate your data. This duplicator is brand-independent and can copy any type of hard drive. The Clone connects to SATA or IDE drives. To operate the Clone, a user must connect the drives and press the copy button. The Clone is hot-pluggable, and two models are available that can copy four or 12 hard drives. The duplicator comes ready to copy both 2.5-inch and 3.5-inch drives using IDE connectivity with the option to add SATA. The Clone also has a Resize function, which lets it duplicate drives of varying capacities and brands.

■ **MicroNet** announced Platinum NAS 4.0, a 4TB NAS server with 1TB SATA drives. It includes true hot-swappable disk drives and supports RAID 0, 1, and 5, including one-to-many RAID 1 mirroring. Platinum NAS 4.0 also supports uninterrupted online RAID initialization, online RAID expansion, and RAID migration (by level or by size). The Platinum NAS 4.0 has an Intel XScale 64-bit processor that supports four

independent SATA channels. The product also includes 256MB of WBWT ECC memory and dual-channel Gigabit Ethernet connectivity. Platinum NAS 4.0 supports Windows, Linux, and Apple. It has a lightweight aluminum design and is priced starting at \$879 for the 1TB model.

■ **Overland Storage** introduced the REO 1500 disk-based backup, recovery, and VTL appliance, designed for small to medium-sized organizations. The REO 1500 offers improved backup and restore speeds compared to those of the previous generation of Overland backup and restore appliances. New features include a compact 1U base unit that supports up to four 500GB SATAII hard drives, RAID 5 data protection, HTTPS secure management, European Union RoHS compliance, iSCSI connectivity, and an easy-to-use browser-based configuration and management interface. The REO 1500 can also be used as one component of a disk-to-disk-to-tape data protection scheme. The REO 1500 is currently available starting at \$5,543.

■ New SAS products from **Promise Technology** include VTrak E-Class external rackmount RAID 6 storage systems, which are 2U and 12-drive units supporting 4Gbps FC or 3Gbps SAS and SATA. Meanwhile, the SuperTrak EX series are PCI Express RAID HBAs with Intel IOP348 processors and internal and external drive support.

■ **QStar Technologies** announced the SentryML Email Archive Appliance to capture, index, and archive email messages from servers. The SentryML Email Archive Appliance allows users to search electronic records for compliance, e-discovery, and knowledge-sharing business needs. The appliance also integrates with the QStar HSM and QStar Data Director products to provide email archiving and managed data storage. The SentryML does not require special integration to work with email applications and is designed to meet the email archive needs of small to mid-sized businesses.

■ The Spectra T950 is a new 8-frame library for the enterprise from **Spectra Logic**. It can scale up to 16PB (compressed capacity), the company says. It's of interest to federal agencies because it offers 256-bit AES encryption and FIPS compliance and because it can partition and combine tape and VTL.

Time- & Cost-Saving Compliance Tool

Active Reasoning System 5 Automates Enterprise Monitoring Processes

by Joe Lazzaro

COMPLIANCE: THE DREADED WORD for computer security professionals. There are so many new compliance standards required by various industries, it is a full-time job just to keep up with the rules, let alone maintain the modifications and documentation you need to achieve compliance. Whether it's

Sarbanes-Oxley, Gramm-Leach-Bliley, HIPAA, the Americans with Disabilities Act, or Section 508 of the Rehabilitation Act, all affect IT one way or another.

Some of the most difficult issues facing security administrators are how to efficiently enforce policies, maintain real-time logs, monitor intruder detection, manage configuration changes, and keep meticulous records

Product  Releases

Workstation

■ **American Portwell** announced its new ARTO-1070, a fanless node chassis which has a form factor designed to support ECX (embedded compact extended) motherboards, including Portwell’s own PEB-2730VL. The ARTO-1070 includes ports for a VGA display and LAN connection. Additionally, it includes four USB and one COM port and PCI-E and PCI expansion abilities through a Portwell Modules I/O interface. The ARTO-1070 uses a toolless entry and a noiseless/vibration-resistant design. Portwell says the ARTO-1070 integrates seamlessly with the PEB-2730VL board, which uses a 3.5-inch Intel ECX form factor, Intel Pentium M or Celeron M-based CPU, DDR2 SDRAM, Ethernet, and imbedded audio. The 1070 weighs less than 5.5 pounds and measures 1.97 x 6.69 x 7.48 inches (HxWxD).

SOFTWARE

Database & Data Mining

■ **ScienceLogic** announced Version 4.2 of the EM7 IT Management Appliance software that includes improved monitoring features and tools for agentless, multiplatform database management. EM7 v4.2 utilizes RSS feeds to stream real-time data to RSS readers in a Web browser, to an operating system sidebar, or on a handheld mobile device. The EM7 software also allows IT departments to partner with business managers and define specific metrics around business applications and transactions. The metrics can then produce reports for trending, capacity planning, and operational intelligence. The RSS delivery tool is designed to help IT departments avoid the email clutter associated with the communication and remediation process. EM7 4.2 supports multiplatform databases, including MySQL, MS SQL, Sybase, Oracle, PostgreSQL, and SAP.

Network & Systems Management

■ **AdRem Software** released the latest version of its Server Manager 6.0, which supports NetWare and Novell OES/Linux products and helps customers who are migrating to Linux from NetWare. The server software provides maintenance and monitoring for networks throughout the migration process. Server Manager client/server is licensed per server, and the client can be installed on an unlimited number of Windows workstations.

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■ **Altiris** released Altiris Deployment Solution 6.8 SP1, which helps users ensure business continuity when migrating to Windows Vista. The package includes Altiris PC Transplant Solution software and has several new features, including Windows Vista image multicasting. It also has sample jobs for Windows Vista Sysprep and scripted OS installs. The package offers Windows Vista user Account Control support and a smaller disk footprint, as well as data and settings migration support for Microsoft Office 2007 and Internet Explorer 7. It supports BDD (Business Desktop Deployment) tools and is available for \$47 per node. Customers who would prefer to buy the PC Transplant Solution separately can buy it for \$25 per node.

Altiris also announced software that helps administrators find and overcome Windows Vista migration barriers. Altiris’ Application Compatibility Suite includes the Altiris Application Control Solution, which creates a user-friendly application environment in Vista without sacrificing security. The package also includes the Altiris Software Virtualization Solution and the Wise Package Studio. Altiris Application Compatibility Suite will be available in Q2.

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■ **Berkeley Varitronics Systems** has announced Sieve, a WiMAX filtering application for Windows XP that outputs 40 Lambda averaged data from BVS’ Gator stimulus Class A transmitter and Coyote’s modular receiver as ASCII files. BVS Sieve can help companies improve the performance of 2.5GHz and 3.4GHz networks. It uses two-stage filtering of redundant data and supports KML file creation. BVS Sieve is available as a standalone product or as part of BVS’ WiMAX Combo Offer.

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■ **CA** announced the Wily SOA Manager. As an extension to Wily Introscope, the new product enables customers to manage the end-to-end performance of transactions that cross SOA by automatically identifying dependencies among Web services, proactively monitoring service-based business processes 24/7, and alerting IT staff to problems so they can be eliminated before impacting business performance. The Wily SOA Manager enables IT teams to effectively measure SLAs and maintain audit trails to isolate the cause of violations. New features include out-of-the-box SOA and Web services monitoring, error detection and impact analysis, automatic discovery of service

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about all changes. To help with this detailed and tedious task, Active Reasoning has released System 5, the newest version of the company’s policy-enforcement software.

Active Reasoning System 5 gives network administrators policy-based control over network clients based on user, device, or even applications access. Features include automation of IT policies and controls; predefined application monitoring templates, which simplify and speed up deployment on critical business apps; continuous change detection; and closed-loop change management.

Automation features include access control capability and add-on modules that provide predefined PCI and COBIT controls that can be used to customize and simplify secure deployment of applications. Monitoring is achieved by deploying event collection agents that collect the specifics of user activity.

Active Reasoning System 5 also adds a new Policy Mapping Database that allows users to load their own policies and control statements. Continuous change detection is affected by continuously monitoring systems for changes in real time, logging activity, and sending alerts when it detects

unauthorized changes. Because System 5 continuously monitors systems rather than simply taking periodic “snapshots” of system configurations, it provides enhanced security and forensic capabilities, giving admins the opportunity to immediately diagnose and remediate any changes that are unauthorized.

Closed-loop change management can be integrated with other change management systems from BMC/Remedy (www.Processor.com/BMC-Software) and HP OpenView ServiceCenter (www.hp.com). Another major benefit of System 5 is that it allows companies to prevent revenue losses and costs associated with outages and downtime. 

SNAPSHOT

Active Reasoning System 5

End-to-end monitoring of security compliance for corporate enterprises with the ability to consolidate collected data into one database, enabling IT administrators to track changes and intrusion attempts

www.Processor.com/System-5

STORAGE

MARCH 16, 2007

IP SAN In A Box

The StoneFly Storage Concentrator Is Ideal For Entry-Level & Mission-Critical Environments



THE STONEFLY Integrated-HA Storage Concentrator HSC (Hybrid Storage Concentrator)-1420 product offers a simple, rapid-to-deploy IP SAN in a box. HSC products offer the ease of the Integrated Storage Concentrator product family with the modularity, redundancy, and high availability of the Modular Storage Concentrator line. With innovative Cluster-Mirror technology for full redundancy and availability, HSCs are ideal for entry-level and mission-critical deployments.

Based on the extensible StoneFusion OS, the HSC-1420 offers best-in-class flexibility and performance and supports storage capacities ranging from 3.5 to 10.5TB in each system. With the StoneFusion Network Storage Platform, StoneFly IP SANs support advanced storage services and management, including storage virtualization, active/active clustering, synchronous mirroring via StoneFly Reflection, StoneFly Snapshot, and centralized storage management.

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istrators to take a layered approach to storage management and availability.

StoneFly IP SANs offer maximum flexibility as storage needs increase. HSC systems also can be clustered with an additional HSC or MSC-i4000 Storage Concentrator. With seamless failover technology and load-balancing, Storage Concentrator Clusters make it easy to design a SAN with no single point of failure. By utilizing StoneFly Cluster-Mirror technology, a second HSC-1420 can be added to offer engine redundancy and data mirroring.

Each HSC-1420 offers an integrated storage concentrator engine, dedicated RAID intelligence, hot-swappable system components, redundant power and cooling, and support for SATA and HSS disk drives. Typical applications include D2D backup, disaster recovery, storage centralization, and other primary storage applications.

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GigaStorATX™



i326

The System

Fully-integrated GigaStorATX 1GbE and 10GbE controllers conform to the ATX form factor specifications, providing a cost-effective performance-based iSCSI Storage System.

The Solution

For VAR's and System Integrators that require a vendor-provided enclosure, iStor offers the i326 Solution. The i326 includes the GigaStorATX System supporting eight ports of GbE or a single 10GbE for iSCSI connection, with capacity for up to 15 customer-supplied high-capacity SATA drives.

When it comes to high-performance, feature-rich, and cost-effective iSCSI RAID storage, iStor Networks solutions should be on your evaluation short list. iStor offers you the balance of price and performance that makes iSCSI IP Storage an obvious “YES” decision for organizations of all sizes or sophistication.



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Product  Releases

Continued from Page 19

dependencies and data collection from UDDI repositories, and customizable reporting, including reporting and analysis for Sarbanes-Oxley and ITIL compliance. The Wily SOA Manager requires Wily Intro-scope and supports leading technology platforms including Apache Axis, BEA WebLogic Server, IBM WebSphere Application Server, NetWeaver, and the Microsoft .NET Framework. The Wily SOA Manager will be available early next month.

■ **Dorian Software** released Event Alarm 5 for event log monitoring and notification. The software now includes Turbo Log Scanning mode, which lets the software use most of the available processor cycles when it scans new events. Event Alarm 5 also includes flood control features, custom domain creation, ping testing, and system offline notifications. Other new features include customizable notification times, drag-and-drop configuration of alarms and notifications, new computer statistics, an updated Event Alarm Listener Console, detailed Syslog device messages, log monitoring history tracking, and a customizable port for SMTP mail server relay. Event Alarm starts at \$90 per server to monitor.

■ **NetSupport** announced NetSupport Manager 10.02 offering full support for all Vista 32-bit and 64-bit variants. The latest update includes full remote control, remote deployment, integrated support for Admin Clearance (UAC), remote login/logout, full hardware and software inventory, remote screen monitoring and recording, and more. This update delivers a complete remote management solution for Windows Vista and provides full support of systems without compromising the additional security and benefits inherent in the new OS. NetSupport Manager also supports all other Windows platforms from Win95 onwards, Mac OS, Linux, Solaris, PPC, Windows CE, and Windows Mobile platforms. A fully functional 30-day trial is available.

■ **Neverfail Group** launched an updated version of its Neverfail SCOPE utility, which is designed to make an organization’s server environment faster and more reliable. Neverfail SCOPE can perform server check, optimization, and performance evaluation tasks on high-availability systems. Network administrators and IT staff can also use Neverfail SCOPE and its fast switch-over capabilities to make sure the business-critical applications remain available on an alternate server in the event of a server failure or system outage. Other new features include continuous health checks, server pair system monitoring both pre- and post-installation, and remote access. Scope is

designed to work with both 32- and 64-bit Windows.

Physical Infrastructure

■ **APC** unveiled InfraStruXure Central v4.0, a platform for the integration and deployment of intelligent enterprise management applications. The base configuration for InfraStruXure Central v4.0 includes tools for device management, alerting, and reporting. However, the platform can scale to perform the full enterprise management of data centers and remote facilities. Customers can also enable additional applications to provide centralized environmental monitoring, video surveillance, rack and data center access control, and ITIL-based Capacity and Change Management. The system includes preloaded software and is offered in a suite of models. With InfraStruXure Central v4.0, customers can establish and define event-altering structures, such as threshold settings, escalation intervals, and crisis event reactionary time, to proactively resolve areas of risk.

Security

■ **AXS-One** released a hosted version of the AXS-One Compliance Platform, which is a platform for the policy-based management of electronic records. The software monitors electronic records of email, instant messages, reports, SAP documents and data, desktop documents, voice, video, and images. The new hosted AXS-One Compliance Platform integrates AXS-One’s electronic records for compliance litigation readiness with the managed hosting and storage services of EDS. It also allows data accessibility over the life-span of electronic records and can host customers with more than a million users. AXS-One Compliance Platform monitors records for risk management, e-discovery, and regulatory compliance. Its software is designed to address operational efficiencies and SLAs to meet IT and business objectives.

■ **Blue Lance** released the latest version of its software for businesses that use Windows. LT Auditor+ 9 For Windows monitors insider activity and threats and helps businesses comply with FDIC/OCC, HIPAA, Sarbanes-Oxley, and SEC regulations. The software includes a Group Policy Auditing feature that monitors password changes, file system changes, and other group policy objects. It alerts administrators immediately when problems are discovered, such as inappropriate data being transferred to a flash drive. Four versions are available: LT Auditor+ 9 For Windows Server, LT Auditor+ 9 For Active Directory, LT Auditor+ 9 For Group Policy, and LT Auditor+ 9 For Workstations.

■ **Blue Lane Technologies** has introduced VirtualShield, which protects virtual machines running VMware Infrastructure 3

from attacks that target known but still unpatched vulnerabilities. VirtualShield offers protection to virtualized servers, wherever they may be located. It also automatically updates the protection level with its database of vulnerabilities without requiring any configuration changes or special installations.

■ **FullArmor** introduced its FullArmor EPM (Endpoint Policy Manager), which is designed to help enterprises automate the delivery, enforcement, and auditing of critical security policies. The FullArmor EPM platform lets administrators enact, maintain, and modify access policies on local and remote desktops, laptops, mobile devices, and point-of-sale terminals. The platform also manages access for devices with temporary network access. Examples of supported roles and states include device-only policy settings (not user settings), unmanaged devices (home computer or other Web-based access), and user policies (not device settings). FullArmor EPM also maintains a comprehensive audit trail of applied security settings to keep regulated organizations in compliance. FullArmor offers the platform starting at \$20 per user or managed endpoint.

■ **Lieberman Software** has announced Account Reset Console 4.0 for changing passwords in a way that is both secure and audited. Account Reset Console not only provides the means to change passwords, but it also provides alerts to users whose passwords are about to expire. Account Reset Console also helps companies comply with regulations and standards, such as Sarbanes-Oxley and HIPAA, by creating an audit trail and is compatible with any SQL-capable database and can integrate with the pre-existing IT infrastructure. Version 4.0 adds improvements to flexible scheduling, filtering for user reports, user emulation for resting passwords, and a simplified setup.

■ **MXI Security** announced ACCESS Enterprise software to manage end-user access and sensitive portable data on MXP portable security devices. The software allows customers to centrally issue, deploy, manage, support, and recall MXP portable security devices, such as the FIPS 140-2 L2 validated Stealth MXP and Outbacker MXP. With the ability to control access via end-user biometric authentication, ACCESS Enterprise allows customers to respond immediately if security is compromised. The software includes both ACCESS Enterprise Manager and ACCESS Enterprise Client components and is designed for large organizations to improve security and reduce the cost needed to manage large numbers of portable security devices.

■ **Sunbelt Software** released the latest version of its email security software for Microsoft Exchange. Sunbelt Messaging Ninja 2.1 has several new features and offers attachment filtering, antivirus, and antispam, among others. One of the new features is the server-based disclaimer functionality. The disclaimer plug-in supports Exchange 2000 and 2003. It lets administrators create policy-based disclaimers for groups, individual users, domains, or even public folders. It also offers disclaimers that users can adjust for themselves or departments. The feature prevents multiple disclaimers in replies and forwards. The Cloudmark antispam engine is improved and offers heuristic and signature-based antispam methods. The enhancements help it identify image spam and new spam variants. Sunbelt Messaging Ninja 2.1 also has an enhanced management console that lets administrators compress Microsoft Access databases. The software also includes better proxy support for systems that require NTLM authentication. Sunbelt Messaging Ninja starts at \$184.95 for five mailboxes and includes the first year of maintenance. Sunbelt offers discounted pricing for additional mailboxes and also offers a 30-day trial via its Web site.

■ **Trend Micro** announced a new version of its smartphone security solution, which will be available next month. Trend Micro Mobile Security 3.0 for Symbian-based S60 protects all Nokia E series devices, including the new Nokia E61i, Nokia E65, and Nokia E90 Communicator against hackers and intrusions while improving on the previously available mobile malicious code protection. This latest release includes new security features within the award-winning Trend Micro Mobile Security. Trend Micro Mobile Security 3.0 has a simple interface to provide maximum security with minimal impact on the user and device. Enterprises can deploy and update Trend Micro Mobile Security through existing device management applications. Trend Micro Mobile Security 3.0 for Windows Mobile 5.0 has been shipping since November.

Storage

■ **Emulex** released its Model 765-S ISP (Intelligent Services Platform) and the LSI StoreAge SVM (Storage Virtualization Manager) application, which is designed to help organizations manage and protect SAN-based storage. The offering is ideally suited to storage pooling, low-capacity snapshots, cloning, mirroring, and online data migration applications. The appliance has a 1U rack-mountable form factor, offers four Fibre Channel ports, and supports current and future features of the Storage Virtualization Manager, including multiView, multiCopy,

Go to Page 21

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ProductReleases

Continued from Page 20
multiMigrate, and multiMirror. The 765-S ISP will be available by the end of next month.

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■ **Symantec** released storage support for Red Hat Enterprise Linux 5, as well as storage management capabilities for Xen virtualization. Symantec plans to provide the Veritas Storage Foundation, Veritas Cluster Server, and Veritas NetBackup solutions for customers adopting Red Hat Enterprise Linux. Symantec and Red Hat also announced a collaborative effort to deliver support expertise to customers through joint engineering, pre-release testing, and a shared virtual lab support model. Symantec will launch a beta program for its Storage Foundation and Dynamic Multi-pathing technologies through the open-source Xen server virtualization, which will be bundled with Red Hat Enterprise Linux 5. The combination of storage virtualization and I/O

multi-pathing with virtualized workloads will enable a standardized, centralized management model across both physical and virtual workloads.

SERVICES

Network & Systems Management

■ **Getronics** unveiled its new Mobility Infrastructure Services platform, aimed at organizations looking to upgrade or deploy a wireless network. The offering was developed using the company’s new WISDOM methodology, which emphasizes wireless integrated security, design, operation, and management. The platform also helps organizations implement VoIP over Wireless Fidelity. The services help organizations secure and control network access to visitors, contractors, and outside collaborators and are currently available in the U.S., but international markets can expect support by the end of the year.

Physical Infrastructure

■ **NetApp** has announced a plan to help its customers reduce data center power consumption through a variety of data management practices. A redesigned infrastructure can reduce the number of drives and devices, shrink the equipment footprint, and maximize the storage in a data center. There are details and links to supplemental resources at NetApp’s site.

Security

■ **EMC** and **RSA** (EMC’s security division) announced its RSA FraudAction Anti-Trojan service, which is designed to protect valuable business assets, customer data, and other sensitive content from malicious software attacks. Targeted primarily at financial institutions, the RSA Fraud-Action anti-phishing, anti-pharming service can block session-hijacking Trojans and keyloggers that can put valuable data at risk. The main components

of the RSA FraudAction Anti-Trojan service are the initial identification and analysis of the malicious software, the blocking of access to the Web-based sources of the malicious software, and the shutdown of these sites. It will be available next month.

Storage

■ **MTI Technology** has launched new Backup and Recovery HealthCheck Services, an analysis system that lets clients verify the integrity, performance, and reliability of their backup and recovery systems. The service provides a snapshot of a client’s readiness for recoverability, as well as a detailed report of recommendations to better the efficiency and reliability of their backup systems. Available for EMC NetWorker and Veritas NetBackup protection environments, MTI’s service includes Performance, Integrity, and Recovery checks for file, email, and database systems; speed and efficiency; and continuance plans and system SLAs.

Aruba Networks Upgrades Its MMS

2.0 Version Offers More Manageable & Scalable Mobility

by Sixto Ortiz Jr.
.....
MOBILE SECURITY is one of the key security issues today. Aruba Networks’ MMS (Mobility Management System) 2.0 provides administrators with the tools to develop and manage mobile networks. With the release of ArubaOS 3.1, the company is enhancing MMS 2.0 with a new set of features.
These new features include virtual mobile networks, management contexts, bandwidth control, voice management and control, and security services integration.
VMNs (virtual mobile networks) allow for the creation of multiple virtual networks

with varying services within a single SSID, so mobile network services can be delivered in a logical manner without having to resort to the creation of networks for delivering specific services. The management contexts feature goes hand-in-hand with VMNs by allowing for the distribution of administrative functions according to management roles. This means specialists can focus on the administration of functions they are most familiar with.
The bandwidth control feature gives administrators the ability to classify traffic and thus apportion the bandwidth to applications where it’s needed most, such as

voice. This feature allows for enforcement of bandwidth controls at the access point and the enforcement of per-SSID service level agreements.

The new optional VSM (Voice Services Module) adds a number of new Voice-over-Wi-Fi features, including dynamic WMM queue management and customization,

SNAPSHOT

Aruba Networks Mobility Management System 2.0

Starts at \$3,995

New features in MMS 2.0 include security services integration, management contexts, and virtual mobile networks

www.Processor.com/Aruba-MMS

phone number awareness, display of SIP call detail records, automated QoS monitoring, network delay calculation, enforcement of WMM queues, and automatic tracking of SIP authentication.
Another new feature delivered by the ArubaOS 3.1 is interoperability with AeroScout real-time location services products, which use RFID tags to wirelessly transmit location information using the same wireless network. According to the company, this feature allows administrators to avoid the creation of a new, separate network to monitor location information from RFID tags.
The introduction of the ArubaOS 3.1 also introduces a dashboard view to MMS 2.0 and better reporting capabilities. Also, the company is implementing AAA (Authentication, Authorization, and Accounting) integration and availability, specifically by implementing hardware-accelerated AAA FastConnect for EAP-TLS.
The company is introducing a number of other features, including a syslog processor, enhanced GuestConnect capabilities for managing visitor wireless access, integration with ArcSight’s event management products, and new wireless intrusion detection alerts to the very popular open-source Snort program. [P]

Vulnerability Scanning For App Security

Watchfire Helps Close Holes In Web-Based Applications

by Cynthia Lazzaro
.....
ONE OF THE MOST PAINFUL yet necessary tasks in any software or hardware development cycle is security testing. However, especially in software and Web development, the task of security testing is often

integrated into the design and development process, so the developers who designed the product are also responsible for assessing the security of their own products. Aside from the irony of having the developer also be the security tester, Web designers and developers are usually not trained security professionals and may overlook important vulnerabilities in their application.
To alleviate this burden for developers and to aid security testers in providing software security assurance, Watchfire has introduced AppScan Enterprise 5, which provides a suite of tools for security professionals and others to analyze Web-based applications, identifying security software flaws early in the software development life cycle.

AppScan Enterprise 5 offers a series of utilities that provides developers and security professionals the tools to roll out more secure applications quickly and efficiently. AppScan Enterprise 5 is made up of several components: QuickScan, a comprehensive computer-based training application to educate a Q&A team about software assurance testing, and advanced source code analysis integration.
QuickScan is a point-and-shoot assessment tool that lets developers test the security of an application as it is being developed. AppScan Enterprise 5 provides enhanced scanning capabilities that locate many vulnerabilities-associated techniques, such as AJAX.
AppScan Enterprise 5 also provides a flexible reporting framework complete with grouping and filtering of specific vulnerabilities and enhanced searching capability. There are more specific lock-down scan-

ning controls that monitor attempts to access sensitive security data and create access reports to help assure that the data is only available to those with the appropriate privilege.
Another major benefit provided by AppScan Enterprise 5 is that it can be installed on a central server, making it easy for companies with a large workforce to deploy and monitor multiple development activities. AppScan has a new graphical interface that is easy to use and can be customized to meet the individual developer’s preferences.
AppScan Enterprise 5 also includes a new Computer Based Training feature. This feature helps accelerate the adoption of standardized security testing methodologies by QA or development teams. This tutorial is designed to help educate nonsecurity professionals on application security fundamentals and product best practices. [P]

SNAPSHOT

Watchfire AppScan Enterprise 5

Cuts down on development time and ensures applications developed are secure from major vulnerabilities and that developers have the tools necessary to create a secure Web application

www.watchfire.com

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Processor Showcase

You should be familiar with the print edition of our Showcase advertising section—it's the section beginning on page 5 of this issue that displays dozens of products of interest to data center and IT professionals. Now there's an electronic counterpart with hundreds more products we can't fit in print.

If you know the specific manufacturer or advertiser you're looking for, click Browse By Advertiser. If you're looking to see if a solution exists, click one of the By Category links (either graphics-based or text-based) or the Word/Phrase Search link.

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If you choose the graphics-based browse option, you'll see instructions on how to use the browsing feature. Pass your cursor over one of the five color-coded categories near the top of the page (Physical Infrastructure, Communications, End Nodes, Software, or Services) then choose the category or subcategory you want and click it. A list of links appears in the left window; pass your cursor over the links, and the product ad displays in the right window. Once you've found a product of interest, click the red More link in the bottom right of the ad for more detailed information.

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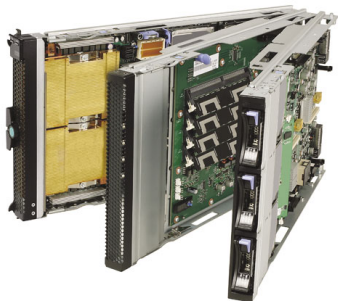
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Compute Blade SBXD132

The Intel Server Compute Blade SBXD132 blade server is available with memory and storage expansion options perfect for small and medium-sized enterprises. Addressing both growing performance demands and the increased need for process efficiencies, the Intel Server Compute Blade SBXD132 can help organizations enjoy improved ROI while extending IT resources through improved performance, performance per watt, opera-



The SR1530AH is ideal when space is at a premium.

tional effectiveness, deployment flexibility, and simplified management.

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OPINIONS

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Lights, Camera, Storage

This month, the annual NAB (National Association of Broadcasters) conference is held in Las Vegas. On the floor of the NAB conference, there will be many storage vendors serving different market segments and niches. Digital storage products play a big role in the growth of this industry. Content creators and distribution outlets are increasing in number and resolution as the cost of digital storage declines and its performance increases. The entire content value chain of content creation, editing, archiving, and distribution, as well as consumer electronics, creates an accelerating feed-forward mechanism driving growth in data storage for all entertainment content applications. Following are some observations on trends in this industry from my “2007 Digital Storage in Entertainment Creation and Distribution” report (Tech Papers page on www.tomcoughlin.com).

Bring On The Entertainment

Almost all broadcast content capture is done digitally now, and feature film production is moving to digital formats too. Digital tape is rapidly being displaced by new digital storage technologies such as blue laser optical media, flash memory modules, and hard drives. These technologies allow random access to data in a file format, making field editing much easier. The low-end market for content

creators is almost entirely done digitally, and this is becoming increasingly true for the higher end, as well. Digital production has resulted in about 10 times more content created than was the case with film production. Nonlinear editing and other post-production work are generally done with uncompressed or slightly compressed content to avoid timing problems. These editing stations have heavily relied upon high-performance DAS (direct-attached storage), but as the I/O performance of storage systems improves, we will see a significant move from dependence on DAS to distributed networked storage for editing and other workflow processes, particularly for higher-end applications and in multiple-seat facilities. Post-production processes will be the single biggest driver of online (or high-performance) networked storage demand, as well as near-line (lower performance but higher capacity and lower cost) network storage in

the entertainment industry. As the amount of storage mushrooms, content creators will be pushed by economics to storage tiering. If the content is static low-cost/high-capacity ATA storage, holographic optical discs and tape-based storage libraries are used. Currently, tapes with native capacities of 1.6TB are available, and first-generation holographic discs have capacities of 300GB. There is developing a class of service providers that comes into a facility and converts older analog or digital content to more modern formats and storage media. Archiving and digital conversion and preservation will be the biggest driver of digital storage capacity growth in the entertainment industry. About 54% of total entertainment market storage capacity will be used for content archiving and preservation in 2006. We believe this will increase to 72% of total capacity by 2012.

Eating The Dog Food

Broadcast, video on demand, digital cinema, and other digital content distribution use compressed formats to make the best use of limited bandwidth resources and to match the content to the intended display device. Digital distribution requires larger amounts of storage as the digital content resolution increases. We expect distribution using Internet technology such as IPTV will become more important. Cable, satellite, and other content delivery operators are expanding their offerings for video on demand. This and increasing resolution drive

digital storage demand. Video on demand requires content be ingested and played or streamed out. Content is ingested at a rate to refresh the content in the cache that serves the video on demand delivery. Digital cinema offers considerable savings to content creators by reducing distribution costs compared to film prints. Distribution of digital theatre content is now done using optical discs or hard drives. Distribution via satellite or Internet feeds may eventually replace actual physical media. Digital cinema will dominate public theatres within a few years. For most installations, network storage predominates over DAS, and most will be online storage since theatres don’t retain content after it is run. Digital cinema will increase in digital storage requirements over 20 times from 2006 through 2012 due to digital theatre conversion and increasing resolution requirements.

Closing Credits

There will be a tenfold increase in the required total digital storage capacity between 2006 and 2012 and over eight-fold growth in storage capacity shipments per year (from 259,406TB to 2,287,547TB). About 54% of the total storage capacity was used for content archiving and preservation in 2006; it’s expected to rise to 72% by 2012. The 2006 storage media breakdown for all the digital entertainment content segments was 72% tape, 15% optical disc, 10% hard drives, and 3.4% flash memory. By 2012 this should change to 28% tape, 30% optical, 35% hard drives, and 7.4% flash. tom@processor.com

TOM COUGHLIN

Tom Coughlin is the author of numerous authoritative reports on digital storage and its applications. He is also the founder and organizer of the annual Storage Visions Conference (www.storagevisions.com) and lead consultant for Coughlin Associates, which provides digital storage technical and market analysis and consulting services. Coughlin is a frequent writer and international speaker on digital storage and storage applications. You can find out more about him at www.tomcoughlin.com.



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OPINIONS
DATA • DEVELOPMENTS

Is Microsoft Listening?

I was invited to the Microsoft MVP Summit held here in the Seattle area this week. This conference brings almost 2,000 developers, architects, influencers, and ordinary people together to provide Microsoft with one-on-one time with the developer and end-user communities. So far, the sessions have given me and other (vocal) MVPs the opportunity to let the most senior people at Microsoft know how well its products like Visual Studio, Visual Basic, and SQL Server are being received. Actually, there are MVPs for virtually every Microsoft product, including FoxPro and Xbox, but no, not BOB.

The MVPs in attendance came from a couple dozen countries from all points on the planet. You're probably familiar with MVPs whether you know it or not; they're men and women who volunteer their time and expertise to your community by answering questions on forums and newsgroups, writing books and articles, and speaking at user groups and conferences. No, these folks are not "evangelists" and don't always spout the Microsoft company line. Frankly, many of us provide independent, informed, and field-focused feedback to Microsoft directly or indirectly that can (at times) be characterized as highly critical. Personally, I think that if people don't tell

Microsoft about the stuff we find hard to swallow, it won't fix the products to make them better suited to our (and our customers') needs.

MSDN Wiki: Its Time Has (Almost) Come

The day before the summit, we had an opportunity to attend a number of preconference sessions; these were very useful to get an inside look at Microsoft's work on new initiatives. I attended three of these,



WILLIAM (BILL) VAUGHN

AUTHOR William (Bill) Vaughn is an industry-recognized author, mentor, trainer, and subject-matter expert on Visual Studio, SQL Server, and ADO.NET. He's worked in the computer industry for over 30 years, including 14 years at Microsoft. He's written seven editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and three editions of "ADO.NET and ADO Examples and Best Practices." Vaughn and Peter Blackburn also wrote the best-selling "Hitchhiker's Guide to SQL Server 2000 Reporting Services." Visit his Web site at www.betav.com.

the doc and to correct bugs does not (currently) have a viable way to identify and validate the author. I for one would be a bit uncomfortable pasting in an example from an unknown source into my application. The MSDN doc team told us that it is working with a new way to create online registered profiles that would provide a way for authors and subject-matter experts to link to a page that highlights their professional credentials and Web site—and a way to ask the author for further assistance. I think this initiative has a lot of potential. Given the state of some of the MSDN help topics, any improvement is a step in the right direction.

Mr. Gates & The Developers

Bill (the other one) was also the keynote speaker on the first day. As usual, he was greeted like "American Idol" winner Taylor Hicks with a thousand digital camera flashes. Unlike the talk he gave a couple of weeks ago at the Vista launch, I think his talk was well-focused, right for the audience, and to the point. More importantly, it was short. He

spent the bulk of the time taking unrehearsed questions directly from the MVP community—gutsy.

While there were a couple of, well, inappropriate questions (and a couple from the Japanese MVPs that needed translation), he answered all the questions well, politely, intelligently, and (often) completely. Mr. Gates' responses always made a lot

of sense for him and the company. For example, when an MVP asked that NNTP (newsreader) service not be deprecated in favor of browser-based forums, Bill said to the VP sitting next to him, "Can't we do both?" That's Bill.

As I am a "Visual Developer" MVP, I heard from the Visual Studio, Visual Basic, and SQL Server product groups on the new features of Orcas (the next release of Visual Studio), including LINQ. I listened and asked a number of (tough) questions, and now that I have a clearer understanding where they are going with this new paradigm, I'm (almost) ready to start working with it—but not quite ready to endorse it.

Perhaps I need to write a new ebook on where LINQ fits (or doesn't). Over the next quarter, I'll be working with the latest public CTP (Community Tech Preview) releases and (hopefully) a few private drops, as well. No, I don't recommend that you (or anyone) depend on the documentation currently exposed on MSDN or included with the CTP drop; it's based on classes and approaches long since refined (or dropped). We'll see more current documentation and walk-throughs appear closer to release. Oh, never (never) install a CTP on a machine that can't be reformatted.

If your company is lucky enough to have one of your staff awarded the MVP designation, I strongly encourage you to let this person go to the summit next year and to continue to support the community; some of these people work for you. [P]

Send your comments to bill@processor.com

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Archiving & Retaining Communications

Capturing Email, Instant Messages & Other Electronic Communications

by Tony Bradley

FOR MANY USERS, there is an ongoing struggle to clear out old email messages and data. For organizations that impose quotas on the mailbox size, particularly when those quotas are 100MB or less, there is a lot of pressure to make sure nothing extraneous is stored in the mailbox and ensure that you clean house regularly.

That may work for individual users, but organizations have regulatory mandates. Depending on which legislation applies to your organization, you may find that you need to store all kinds of data and information, including emails and instant messaging traffic, for some predefined minimum period of time. Capturing and retaining electronic communications, especially archiving them in a manner that is useful or accessible in any way, is a challenge for organizations trying to be compliant.

Regulatory Mandates

Much of information security today is driven by a legal or industry regulatory mandate. Entire product lines, career fields,

and IT budgets have sprung up dedicated to compliance with Sarbanes-Oxley, HIPAA, GLBA, the PCI Data Security Standard, and more.

Security for the sake of security can be a hard sell when pitching the investment to management, but if the investment is tied to regulatory compliance of some sort, suddenly the money flows more freely. For some legislative mandates, such as Sarbox, the willingness to invest in compliance is driven in part by the desire to stay out of jail. When noncompliance can mean huge fines or even jail time for executive management, they are more willing to write a check to make sure the organization is compliant.

Describing the drive for small and medium-sized enterprises to archive and retain their electronic communications, Joel Dubin, author of “The Little Black Book of Computer Security,” says, “There are two drivers. One is just plain security. Email and IM are just another vector for malware and spam. The other driver is compliance. Regulations like SOX, GLBA, and HIPAA require companies to control outgoing

data. That includes what’s going out in email and IM.”

Defining The Scope

Hard drives are certainly cheaper per megabyte than they have been in years past, so storage space is not usually an issue for most organizations, but you still have to draw a line somewhere. What types of communications need to be monitored?

that your organization is compliant with them or risk the consequences of noncompliance.

Companies in the financial industry, for example, must also comply with U.S. SEC rule 17a-4 and U.S. NASD 3010, which dictate that not only email but also other forms of electronic communications, such as instant messaging, must be captured and retained for future reference.

In the event that an incident occurs, or when there is pending litigation, the organization may be called on to produce all relevant electronic communications. Having a means to capture and retain the data is one thing, but being able to do so intelligently in a way that will make search and retrieval more efficient is just as important.

The Right Tool For The Job

When hardware and software vendors identify a new market, they quickly rush to fill the void. The compliance market is no exception. While relatively new, there is a growing variety of products

Make sure that you understand the laws and regulations that apply to you and that you properly archive and retain the appropriate electronic communications.

How much communications data are companies required to capture and archive? How long do they need to keep the data available?

To some degree, it depends on the organization and the industry it operates in. Legislation such as Sarbox and HIPAA apply to specific segments such as publicly traded companies or the health industry. You must be aware of the regulatory mandates that apply to your business and ensure

available to help organizations meet their compliance needs.

Products such as E-Trail Digital Archive from Lighthouse Global Technologies (www.lighthousegt.com) or the AXS-One Compliance Platform from AXS-One (www.axsone.com) are designed to make the entire task and process of electronic communications data capture and retention more streamlined and efficient.

Like it or not, regulatory compliance is here to stay for some time. Whether you decide to bake your own solutions in-house or purchase appliances and applications to help out, complying with legislative and industry mandates will be a major driver in determining the scope and direction of your IT efforts, and it will probably be the justification behind much of the IT budget. Regardless of the tools you choose, make sure that you understand the laws and regulations that apply to you and that you properly archive and retain the appropriate electronic communications.

Email & Instant Messaging Retention Solutions		
Vendor	Product	Description
Akonix (www.Processor.com/AkonixIM)	L7 Enterprise	Controls access to instant messaging and archives instant message conversation threads to meet compliance guidelines
AXS-One (www.axsone.com)	Compliance Platform	Provides email and instant messaging archiving and retention for a variety of email and instant messaging platforms
Lighthouse (www.lighthousegt.com)	E-Trail Digital Archive	Suite of software products providing capture and archiving of electronic communications, including email, instant messaging, VoIP, and even SMS message traffic, for regulatory compliance
ReSoft (re-soft.com)	Archive One	A family of products designed to help organizations enforce email retention policies and meet regulatory requirements

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Running IT As A Business

Is This A Good Idea For Your SME?

by Kurt Marko

AS IT HAS MATURED as a business function, its integration with the rest of a company’s businesses has become more critical. For many enterprises, IT’s evolutionary, unplanned growth has led to problems such as out-of-control expenses and projects not closely aligned with overall business strategy. Once an isolated organization populated by self-styled geeks, IT’s new role as a mainstream business unit means it can no longer march to its own drummer independent of a company’s overall business goals and strategy. Yet the use of standard business analysis techniques in IT is still not pervasive; according to a survey by Michael Speyer, senior analyst at Forrester Research, only 29% of small, 40% of midsized, and 60% of enterprise IT organizations say it is “very important” to make a business case when justifying new IT projects. The formalization of IT’s function is known in management circles as “IT gover-

nance.” Peter Weill and Jeanne Ross at the MIT Sloan School of Management define it as “the decision rights and accountability framework for encouraging desirable behaviors in the use of IT.” According to ISACA (Information Systems Audit and Control Association), a key element of IT governance is “providing organizational structures that facilitate the implementation of strategy and goals.” Lately, a common solution for aligning a company’s business units and IT has involved consolidating IT functions, using a so-called “shared services” model, and running IT as an internal business, charging other business units for IT service consumption. **Benefits Of The Shared Services Model** The shared services business model can be applied to many corporate functions, from IT or HR to facilities management. According to the consultancy Holland and Davis, LLC, “The objective of the shared services model is to improve the financial performance of the corporation,” which is accomplished through increased efficiency

due to standardization and economies of scale and by disengaging business units from noncore activities such as IT. Reorganization into a shared services model is often accompanied by adoption of chargeback accounting for IT services. According to Mark J. Denne, a partner with Accenture (www.accenture.com), a key benefit of using chargebacks is in aiding the transformation of IT “from a cost center to a value center.” It also provides the opportunity for IT departments to simplify their service catalog and potentially defend against outsourcing because costs and services are more transparent. Terry

When transforming IT to an internal business, SMEs have both advantages and barriers compared to their Fortune 500 brethren.

Doerscher, chief solutions architect for Planview (www.Processor.com/Planvw), a leader in IT management software, concurs, noting that the goal of any IT business restructuring is to help companies see IT as providing value rather than overhead cost.

Road To The Service Provider Business Model

Before companies embark on an overhaul of their IT governance structure, it’s important to understand IT’s current role in the business, says Doerscher. He notes that in some industries, such as finance or online retailing, IT transactions are a fundamental part of the business, thus an internal service provider approach with a fairly granular and detailed chargeback system makes sense. Other industries, such as retailing or manufacturing, see IT as merely a tool or service. You can summarize these two segments as businesses where IT is either a profit center, and therefore a valued partner, or a cost center—looked upon either as a trusted supplier or perhaps merely a utility. Doerscher also cautions that prior to adopting a service provider approach, “companies need to look at the maturity of their IT department—a full-blown chargeback model requires a lot of data” that probably isn’t available to inchoate IT departments with little formal structure. He says that companies need to decide whether the pain of increased instrumentation and data analysis is worth the gain of more accurate cost recovery and better demand management.

Drawbacks

A couple drawbacks of an over-aggressive service chargeback approach are that it often

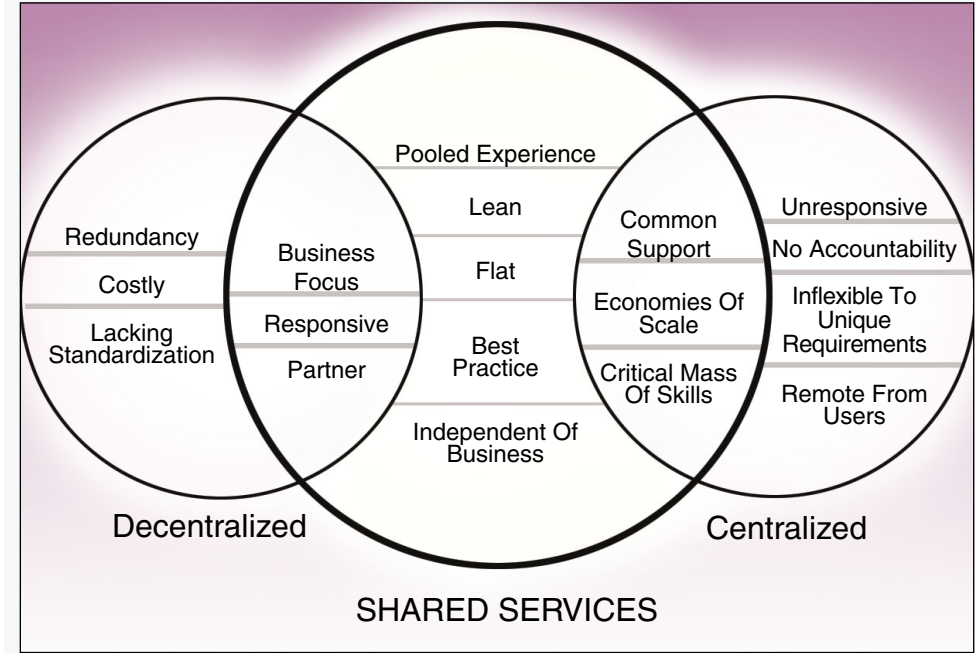
adds needless billing complexity and may bill customers for services they have little control over, says Doerscher. He analogizes that no consumer “wants to see a five-page bill for their cable TV service” because such granularity is meaningless and frustrating. Internal customers also need some control over billed service consumption; if every PC in a company is required to have Microsoft Office and a certain set of antivirus and security tools, it makes no sense to charge users for each independently. Another pitfall of running IT as an internal business is that it risks further isolating and alienating IT from its end users, say Bill Pfleging and Minda Zetlin, authors of “The Geek Gap: Why Business & Technology Professionals Don’t Understand Each Other & Why They Need Each Other To Survive.” Their book documents fundamental cultural differences between business and technology experts, in terms of skill sets, language, and motivation. They caution that the service-provider model for IT may be “a brute force way of solving the problem” of bringing business accountability to IT; however, there are other ways of making techies more aware of business issues, such as education or temporary job assignments in other departments.

Issues For SMEs

When transforming IT to an internal business, SMEs have both advantages and barriers compared to their Fortune 500 brethren. Planview’s Doerscher feels that IT departments of fewer than 50 or 60 people are ill-suited to formal IT governance models; they tend to be “run by osmosis.” He believes that midsized departments have an advantage over large enterprises in restructuring IT because, being more compact and centralized, they have fewer communication issues and less bureaucracy. Conversely, he notes that whether you are a large or small IT shop, running IT as a business requires building a set of processes and services largely from scratch, a potentially significant initial hurdle for SMEs. Pfleging and Zetlin concur that the smaller size of SMEs offers better opportunities for IT to communicate and integrate with the rest of the business. Their smaller, more informal culture lends itself to tighter integration with other business units, as does the fact that they may reside in the same building as their colleagues, vs. an offsite data center. Zetlin says, “Physical proximity is important.” There is consensus among the experts that bringing greater financial rigor to IT governance and operations is beneficial; however, implementing a consolidated, shared services business model with detailed interdepartmental chargebacks for IT services is not desirable for smaller or less mature organizations. Companies with well-established IT departments, particularly those in industries where IT transactions are a key part of the underlying business, are most likely to profit from a shared services implementation. ■

Shared Services Business Model

The shared services business model, a common approach for running corporate functions as an internal business, attempts to provide efficiency through consolidation while avoiding bureaucratic unresponsiveness associated with an overly centralized approach.



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Scale-Out vs. Scale-Up

Which Technique Is Right For Your Data Center?

by Will Kelly
• • •

CHOOSING AN ENTERPRISE architecture for your corporate data center includes much upfront analysis and planning before you settle on scale-out or scale-up architecture. These two popular architectures both have particular advantages and disadvantages for the small to medium-sized enterprise building out its data center.

Scale-out architecture enables a data center to grow over time. This HA (high availability) architecture uses multiple machines and infrastructure working in tandem. Typically, Ethernet provides connectivity between machines in the scale-out architecture. Key benefits of scale-out architecture include redundancy and high availability of applications.

Scale-up architecture can be more expensive because it uses multiple processors

sharing the same memory space, according to Daniel Cox, manager of the High-Performance Computing Programs for the Industry Standard Server group for HP (www.hp.com). This architecture relies on denser clusters of servers such as blades to drive computing tasks.

Choosing Between Scale-Out & Scale-Up

When considering an enterprise architecture for a new data center, other factors come into play, including power and cooling. Cox advises that you plan five years out based on projected business growth.

Rik Wright, group product manager for the Windows Server Business Group at Microsoft (www.microsoft.com), says, “Launching a new data center definitely presents the opportunity to rethink your network capacity and footprint, where the scale-out vs. scale-up decision is primarily driven by application architecture, processing, and data warehousing requirements. Today we see a data center environment where innovations such as smaller hardware

form factors, lower power consumption of computing devices, and increased scalability of multicore chipsets are all definitely lending themselves to more robust and dependable scale-out architectures.”

Another factor that needs addressing is a capital investment plan. Building out a scale-up architecture requires a larger upfront investment because the servers are more expensive. Building out a scale-out architecture can be done incrementally, pushing the investment costs across multiple business quarters.

Considerations

Wright says, “The first consideration I would call out between scaling out and scaling up is how your business intends or needs to deploy particular applications. For example, do you have need to run an application on a single machine such as a multi-terabyte database, or is the application intended to be spread across several servers, such as collaborative application suites like Microsoft Exchange or other easily dispersed workloads such as Web serving?”

Wright continues, “The second consideration I would highlight is application availability. While large scale-out servers tend to be highly reliable, there are often significant maintenance costs associated with maintaining that level of uptime, and yet you still have a single point of failure for whatever service that server is providing. If the application you are deploying allows for a distributed architecture, you can cluster several smaller servers together and present them to the network as a single service, therefore providing fault tolerance if one server fails without bringing down the overall availability of the application.”

According to Wright, “The third consideration that deserves being called out is your server management infrastructure. . . . Each added server in a scale-out environment logically increases the footprint of the network and therefore possibly the number of staff to manage it. However, in today’s volume server market, we are seeing a lot of new technologies in the areas of systems management automation and virtualization capabilities, such as our upcoming Microsoft Systems Center product, that provide for easier, simpler, and consolidated management of scale-out server topologies.”

Scale-up architecture, with its reliance on more powerful processors and compact configurations such as a blade server, means that while blade servers are going to take up less space, their processors run hotter than their traditional server counterparts. This means data center cooling needs to accommodate the additional heat from the blade servers. Maintenance on blade servers can also be more expensive.

The trade-off with scale-up architecture is that while the dense architecture requires less physical floor space in your data center, cooling costs could grow.


Scale-out architecture, with its reliance on multiple traditional servers, requires more floor space, and all the while it may not be as fast as a scale-up architecture. It is easier to add new technologies incrementally. Additionally, scale-out architecture is based on pairs of machines each backing up and protecting one another.

There is also a middle ground in scale-out and scale-up architectures where you can leverage each architecture method. Cox suggests exploring placing your applications on blade servers (scale-up architecture) for performances and placing your storage in a scale-out architecture.

The main deciding factors include high-availability (check your SLAs), cooling, and space requirements. ■

Scale-Out & Scale-Up Architectures Compared

Scale-Out Architecture	Scale-Up Architecture
<ul style="list-style-type: none">• Uses multiple machines• Provides redundancy for mission-critical applications but with some sacrificing of performance• Capital investments can be spread out across multiple budget cycles• Easier architecture for the incremental introduction of new technologies	<ul style="list-style-type: none">• Uses multiple processors sharing the same memory space• Some applications work better in a scale-up architecture environment• Larger upfront capital investment• Less flexibility for the introduction of new technologies



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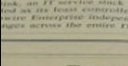
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WHAT'S HAPPENING

IP SAN Solutions

StoneFly Offers Reliable, Affordable Packages

by Robyn Weisman

SAN DIEGO—Based StoneFly Networks (www.Processor.com/StoneFlyNet), a maker of cost-effective SANs using the iSCSI standard, was founded in 2000, getting its name from co-founder John Downing, an avid fly fisherman (a stonefly is a type of trout fly used for fly fishing). Downing’s choice of name turned out to be prescient because six years later it landed \$34 million in funding by DNF (Dynamic Network Factory; www.Processor.com/DNF), a leading maker of high-performance NAS, SAN, RAID, and iSCSI systems, when the latter acquired StoneFly early last year.

“Our goal with the acquisition was to make [StoneFly] stronger than ever by building upon its proven IP SAN expertise while expanding its OEM and reseller channels in the U.S. and abroad where demand is high for reliable, scalable, and affordable iSCSI storage,” says DNF President and CEO Mo Tahmasebi.

Tahmasebi says StoneFly made a splash in 2000 when it launched a new form of iSCSI-based data storage technology that caught companies’ eyes. “These companies must store tremendous amounts of information about their customers, partners, and products, including transactions, email, and more,” says Tahmasebi. “StoneFly’s products combine hardware and software technology to help organizations minimize the cost and complexity of managing that data.”

SME Storage Sweet Spot

Jame Ervin, technical account manager at StoneFly, says the company started

developing its line of SC (Storage Concentrators)—StoneFly’s IP SAN product line—and its StoneFusion storage operating system with small to midsized enterprises in mind, although Ervin adds that StoneFly’s three core SC lines are scalable for organizations of all sizes.

Ervin calls StoneFly’s ISC (Integrated Storage Concentrator) product family the workhorse of StoneFly’s IP SANs as it provides users with a cost-effective and easy-to-deploy SAN-in-a-box solution. “The ISCs are a great fit for most organizations with storage capacities ranging from 2 to 18TB, and [it offers] options for supporting 10GB IP SANs in the future,” Ervin says.

StoneFly’s MSC (Modular Storage Concentrator) product line is the anchor of the StoneFly product line, says Ervin. Its fourth-generation MSC-i4000 offers extensive expansion and deployment flexibility with support for SAS and SATA drives for tiered storage applications and can even function as a bridge to Fibre Channel SANs, along with maximum scalability in excess of 100TB.

“The MSC was designed with business continuity and high availability in mind; MSCs can be configured in an active/active failover cluster for mission-critical deployments,” says Ervin. According to Ervin, the i4000 offers great performance, dual-core processing power, and large amounts of internal bandwidth, among other features.

“We spent a great deal of time looking at the future applications and interconnects we identified on our roadmap and built [the i4000] to take advantage of high-performance SAS, Ethernet, Fibre Channel, and InfiniBand for all of our advanced applications in the pipe,” Ervin says.

StoneFly’s newest IP SAN product line is its HSC (Hybrid Storage Concentrator). According to Ervin, the HSC is a best-of-

breed system that provides the benefits of both MSC and ISC IP SANs and can support clustering and cluster mirrors in the future.

Ervin points out that StoneFly’s IP SAN systems supply users with a broad range of deployment options and expansion scenarios. “[They] can scale vertically or horizontally, giving our customers the choice of scaling performance and/or capacity depending on their requirements,” she says.

Install & Forget It

“Our SCs were designed with ease of use in mind and are easily deployed and configured. Our IP SAN can be deployed in as little as 15 minutes, depending on how many servers will be connecting. They are ‘install and forget it’ products,” Ervin says.

Ervin says one of StoneFly’s long-term customers opened a support case for his first- or second-generation SC because he wanted to reset his administrator password in order to perform a Daylight Saving Time update. He had forgotten his original one. “He had not had an occasion to change, restart, or modify his system settings since he set it up four years ago!” says Ervin. “Many of our



customers [have] small IT departments staffed with IT generalists, and we understand that easy-to-use tools are a must-have.”

“Grand Slam” Storage Operating System

StoneFusion is StoneFly’s dedicated storage operating system, Ervin says. It includes a wealth of features, including a robust storage virtualization engine to isolate the iSCSI volumes from the physical storage volumes for flexibility, availability, redundancy, and

ease of migration. StoneFusion offers advanced storage services including active/active clustering, load balancing across multiple SCs, volume management, snapshots, local and remote mirroring, and centralized management. There are also application-aware host agents to ensure transactional integrity for mission-critical apps for those who need it. “With StoneFusion, the features of enterprise-class SAN management are available to the masses,” Ervin says.

All StoneFusion configurations are fully featured. The only feature that is not enabled across all of the product families is clustering and load balancing because StoneFly’s entry-level ISC product family does not support failover clusters, says Ervin.

“It’s kind of like going to Denny’s. Instead of getting your pancakes and eggs a la carte, we think it is better to just get the Grand Slam and have everything. You can always have the leftovers later, and we think you will grow into the advanced IP SAN features as you need them,” Ervin says.

Partners & Channels

Tahmasebi says StoneFly’s sales break down evenly between direct sales and channel partners. Early last year the company launched its “MVP Partner Program” and has more than 50 registered partners, including CommVault (www.commvault.com), Novell (www.novell.com), and Microsoft (www.microsoft.com). In addition, StoneFly recently formed a partnership with VMware (www.vmware.com) to support its customers using virtual servers.

“We offer two types of partnerships: Channel Partners, which are resellers, and Alliance Partners, which are affiliates and consultants,” Tahmasebi says. “In addition to the resellers and system integrators that make up the bulk of our MVP Partners, we have recently entered into partnerships with PAC Data [www.pacdata.com] . . . as well as with UK-based JAD Logic [www.jadlogic.co.uk], an agreement that will allow us to expand our reach into Western Europe.”

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